GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:37:03 ; Search time 46 Seconds
(without alignments)
1642.475 Million cell updates/sec

Title: US-10-084-018-3
Perfect score: 2554
Sequence: 1 MVGAMWKVIVSLVLLMPGPC.....RAFDMINRFIYGKGWDPYVG 476

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
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2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2550	99.8	476	19	AAW72966	Human serine carbo
2	2539	99.4	476	20	AAY28570	Secreted peptide c
3	2539	99.4	476	22	AAU39043	Human secreted pro
4	2539	99.4	476	23	ABB55752	Human polypeptide
5	2538	99.4	476	20	AAY13372	Amino acid sequenc
6	2538	99.4	476	21	AAB01407	Human TANGO 176.
7	2538	99.4	476	22	AAU29228	Human PRO polypept
8	2538	99.4	476	22	AAB80240	Human PRO223 prote
9	2538	99.4	476	24	ABU69650	Novel human secret
10	2538	99.4	476	24	ABU71316	Human PRO223 prote
11	2538	99.4	476	24	ABU71473	Human PRO polypept
12	2538	99.4	476	24	ABU71919	Human secreted/tra
13	2538	99.4	476	24	ABU65773	Human secreted/tra
14	2538	99.4	476	24	ABU66106	Novel human secret
15	2538	99.4	476	24	ABU67373	Human secreted pro
16	2538	99.4	476	24	ABU67610	Human secreted/tra
17	2538	99.4	476	24	ABU64527	Human secreted/tra
18	2538	99.4	476	24	ABU65468	Human PRO polypept
19	2538	99.4	476	24	ABU58604	Human PRO polypept
20	2538	99.4	476	24	ABU56140	Human secreted/tra
21	2538	99.4	476	24	ABU57135	Human PRO polypept
22	2538	99.4	476	24	ABU54375	Human secreted/tra
23	2538	99.4	476	24	ABU10714	Human secreted/tra
24	2538	99.4	477	22	AAM25810	Human protein sequ
25	2536	99.3	476	22	AAB88381	Human membrane or
26	2533	99.2	476	22	AAB88587	Human hydrophobic
27	2512.5	98.4	477	19	AAW72965	Human serine carbo
28	1772.5	69.4	351	19	AAW72967	Human serine carbo
29	1371	53.7	299	22	ABG22322	Novel human diagno
30	960.5	37.6	482	22	ABB60774	Drosophila melanog
31	557	21.8	480	22	AAB76860	Human lung tumour
32	557	21.8	480	23	AAU85515	Clone #18991 of lu
33	557	21.8	480	24	ABU69487	Human lung cancer
34	557	21.8	480	24	ABU66389	Lung cancer therap
35	555.5	21.8	452	18	AAW15091	Human precursor pr
36	553.5	21.7	492	21	AAB58436	Lung cancer associ
37	545.5	21.4	438	18	AAW15092	Human protective p
38	538.5	21.1	492	21	AAB01416	Mouse TANGO 176.
39	525.5	20.6	102	22	ABG22321	Novel human diagno
40	498.5	19.5	491	15	AAR48059	Sequence of protea
41	491.5	19.2	612	23	ABR38834	A. niger carboxype
42	484	19.0	482	21	AAG30065	Arabidopsis thalia
43	484	19.0	502	21	AAG30064	Arabidopsis thalia
44	482.5	18.9	536	23	ABR38819	A. niger carboxype
45	472.5	18.5	550	23	ABG93281	C. albicans BAX-as

ALIGNMENTS

RESULT 1
AAW72966
ID AAW72966 standard; Protein; 476 AA.
XX
AC AAW72966;
XX
DT 21-JAN-1999 (first entry)
XX
DE Human serine carboxypeptidase MMLR3DT01.
XX
KW Human; serine carboxypeptidase; CPEPT; diabetes mellitus; stroke;
KW Alzheimer's disease; multiple sclerosis; inflammatory glomerulonephritis;
KW atherosclerosis; ischaemic heart disease; Parkinson's disease;
KW Huntington's disease; amyotrophic lateral sclerosis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 118
FT /label= unknown
FT /note= "encoded by TTW"
FT Misc-difference 146
FT /label= unknown
FT /note= "encoded by STC"
XX
PN WO9844128-A1.
XX
PD 08-OCT-1998.
XX
PF 30-MAR-1998; 98WO-US06250.
XX
PR 31-MAR-1997; 97US-0828488.

```
XX
PA   (INCY-) INCYTE PHARM INC.
XX
PI   Bandman O,  Goli SK,  Hawkins PR,  Hillman JL,  Lal P;
XX
DR   WPI; 1998-557121/47.
DR   N-PSDB; AAV64076.
XX
PT   Novel human serine carboxypeptidase  - useful in the treatment of
PT   e.g. diabetes mellitus, Alzheimer's disease, multiple sclerosis
XX
PS   Claim 1; Page 46-47; 68pp; English.
XX
CC   The present sequence represents a human serine carboxypeptidase (CPEPT).
CC   The protein can be used in methods to treat disorders associated with
CC   increased CPEPT expression e.g. diabetes mellitus, inflammatory
CC   glomerulonephritis, atherosclerosis or ischaemic heart disease, or
CC   disorders associated with decreased CPEPT expression such as stroke,
CC   Alzheimer's, Parkinson's or Huntington's disease, multiple sclerosis or
CC   amyotrophic lateral sclerosis. A hybridisation probe, complementary to
CC   part of the nucleic acid sequence encoding CPEPT, can be used to detect
CC   nucleic acids encoding CPEPT in a sample. Host cells and vectors,
CC   containing nucleic acids encoding CPEPT, can be used to express CPEPT.
XX
SQ   Sequence   476 AA;

  Query Match             99.8%;  Score 2550;  DB 19;  Length 476;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-241;
  Matches  476;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 2
AAY28570
ID   AAY28570 standard; Protein; 476 AA.
XX
AC   AAY28570;
XX
DT   26-OCT-1999  (first entry)
XX
DE   Secreted peptide clone bv280_3.
XX
KW   Secreted; proliferation; differentiation; cytokine activity; vaccine;
KW   anti-inflammatory; tissue growth; tumour inhibition; gene therapy;
KW   haematopoiesis regulator; cell proliferation; immune stimulant.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         10..22
FT                   /label= signal_peptide
FT   Protein         23..476
FT                   /label= bv280_3
FT   Active-site     195..212
FT                   /note= "Serine carboxypeptidase active site motif"
XX
PN   WO9936512-A1.
XX
PD   22-JUL-1999.
XX
PF   11-JAN-1999;   99WO-US00550.
XX
PR   08-JAN-1999;   99US-0227462.
PR   13-JAN-1998;   98US-0071304.
XX
PA   (GEMY ) GENETICS INST INC.
XX
PI   Agostino MJ,  Clark HF,  Collins-Racie LA,  Evans C;
PI   Fechtel K,  Jacobs K,  Lavallie ER,  McCoy JM,  Merberg D;
PI   Spaulding V,  Steininger RJ,  Treacy M,  Wong GG;
XX
DR   WPI; 1999-493881/41.
DR   N-PSDB; AAZ10805.
XX
PT   New polynucleotides encoding human secreted proteins used for
PT   therapeutic, diagnostic and research purposes
XX
PS   Claim 16; Page 111-113; pp128; English.
XX
CC   This sequence is the human secreted protein bv280_3. This protein shows
CC   homology to a carboxypeptidase, and has a serine carboxypeptidase active
CC   site motif at residues 195-212. Polynucleotides AAZ10804-Z10813 and
CC   polypeptides AAY28568-Y28580 are predicted to have biological activities
CC   which would make them suitable for treating, preventing or ameliorating
CC   medical conditions in humans and animals, although no supporting data is
CC   given. Suggested activities include nutritional activity, cytokine and
CC   cell proliferation or differentiation activity, immune stimulating (e.g.
CC   as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, anti-inflammatory activity,
CC   cadherin/tumour invasion suppressor activity, and tumour inhibition
CC   activity. The polynucleotides may also be useful for gene therapy.
XX
SQ   Sequence   476 AA;

  Query Match             99.4%;  Score 2539;  DB 20;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.2e-240;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
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Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
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Db        241 DPESIIGGYAEFLYLIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
                ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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RESULT 3
AAU39043
ID AAU39043 standard; Protein; 476 AA.
XX
AC AAU39043;
XX
DT 16-JAN-2002 (first entry)
XX
DE Human secreted protein bv280_3.
XX
KW Human; secreted protein; antiinflammatory; immunosuppressive;
KW nootropic; neuroprotective; antiarthritic; antimicrobial; vulnerary;
KW cytostatic; antidiabetic; virucide; antiinfertility; anticonvulsant;
KW vasotropic; antiparkinsonian; immunostimulant; dermatological;
KW antirheumatic; antitumor; antiulcer; osteopathic; tranquiliser;
KW cerebroprotective; cytokine; cell proliferation; cell differentiation;
KW immune deficiency; severe combined immunodeficiency; SCID; tumour;
KW autoimmune disorder; multiple sclerosis; rheumatoid arthritis;
KW graft-versus-host disease; myeloid deficiency; wound healing; ulcer;
KW periodontal disease; osteoporosis; osteoarthritis; Alzheimer's disease;
KW Parkinson's disease; Huntington's disease; infection; cardiac disease;
KW stroke; sepsis; inflammatory bowel disease; contraceptive; immunogen;
KW food supplement; vaccine.
XX
OS Homo sapiens.
XX
PN WO200175068-A2.
XX
PD 11-OCT-2001.
XX
PF 22-MAR-2001; 2001WO-US09369.
XX
PR 30-MAR-2000; 2000US-0539330.
PR 04-DEC-2000; 2000US-0729674.
XX
PA (GEMY) GENETICS INST INC.
XX
PI Jacobs K, McCoy JM, Lavallie E, Collins-racie LA, Evans C;
PI Treacy M, Agostino MJ, Steininger RJ, Spaulding V, Wong GG;
PI Clark H, Fechtel K, Merberg D;
XX
DR WPI; 2001-639363/73.
DR N-PSDB; AAS59261.
XX
PT Secreted human proteins, useful as vaccine for treating various
PT diseases such as autoimmune disorders (e.g. multiple sclerosis), and
PT nervous system disorders (e.g. stroke) -
XX
PS Disclosure; Page 529-530; 619pp; English.
XX
CC The invention relates to novel human secreted proteins, the nucleic
CC acids encoding them. The protein may exhibit cytokine, cell proliferation
CC or cell differentiation activity or may induce production of other
CC cytokines in certain cell populations and may exhibit immune stimulating
CC or immune suppressing activity, which is useful for the treatment of
CC various immune deficiencies and disorders e.g. severe combined
CC immunodeficiency (SCID), autoimmune disorders e.g. multiple sclerosis,
CC systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary
CC inflammation. The proteins are also useful in the treatment of diseases
CC and disorders including tissue, skin and organ transplantation and in
CC graft-versus-host diseases (GVHD), in the induction of tumour immunity,
CC myeloid or lymphoid cell deficiencies, wound healing and tissue repair,
CC in the treatment of burns, incisions and ulcers; as well as in treatment
CC of periodontal disease, osteoporosis or osteoarthritis, mediated by
CC inflammatory processes, diseases of the peripheral nervous system,
CC Alzheimer's, Parkinson's disease, Huntington's disease,
CC amylotrophic lateral sclerosis, and Shy-Drager syndrome, infections,
CC infarction of cardiac and central nervous system vessel e.g. stroke,
CC sepsis, inflammatory bowel disease, ulcers, bone regeneration. The
CC protein, having activin- or inhibin-related activities is useful as a
CC contraceptive based on the ability of inhibins to decrease fertility in
CC female mammals and decrease spermatogenesis in male mammals. The
CC proteins and nucleic acids are also useful as food supplements. The
CC present sequence represents a secreted protein of the invention.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2539; DB 22; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.2e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYLIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
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Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
```

RESULT 4
ABB55752
ID ABB55752 standard; Protein; 476 AA.
XX
AC ABB55752;
XX
DT 14-FEB-2002 (first entry)
XX
DE Human polypeptide SEQ ID NO 110.
XX
KW Human; clone bd306-7; clone yb8-1; ATCC number 98599; gene therapy;
KW immune disorder; bacterial infection; fungal infection; cancer; tumour;
KW autoimmune disorder; systemic lupus erythematosus; wound; ulcer; inhibin;
KW osteoporosis; osteoarthritis; nervous system disorder; neuropathy;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease; activin;
KW haemophilia; cardiac infarction; stroke; sepsis; arthritis; vulnerary;

KW ischaemia-reperfusion injury; inflammatory bowel disease; chemotactic;
KW Crohn's disease; cytostatic; anti-inflammatory; immunomodulator;
KW neuroprotective; haemostatic; thrombolytic; anti-inflammatory.
XX
OS Homo sapiens.
XX
PN US2001039335-A1.
XX
PD 08-NOV-2001.
XX
PF 04-DEC-2000; 2000US-0729674.
XX
PR 10-APR-1997; 97US-126425P.
PR 04-DEC-1997; 97US-067454P.
PR 20-DEC-1997; 97US-068379P.
PR 02-JAN-1998; 98US-070346P.
PR 07-JAN-1998; 98US-070643P.
PR 08-JAN-1998; 98US-070755P.
PR 13-JAN-1998; 98US-071304P.
PR 22-JAN-1998; 98US-072134P.
PR 30-JAN-1998; 98US-073095P.
PR 18-FEB-1998; 98US-075038P.
PR 30-MAR-2000; 2000US-0539330.
PR 23-NOV-1998; 98US-0197886.
XX
PA (JACO/) JACOBS K.
PA (MCCO/) MCCOY J M.
PA (LAVA/) LAVALLIE E R.
PA (COLL/) COLLINS-RACIE L A.
PA (EVAN/) EVANS C.
PA (MERB/) MERBERG D.
PA (TREA/) TREACY M.
PA (AGOS/) AGOSTINO M J.
PA (STEI/) STEININGER R J.
PA (SPAU/) SPAULDING V.
PA (WONG/) WONG G G.
PA (CLAR/) CLARK H.
PA (FECH/) FECHTEL K.
XX
PI Jacobs K, McCoy JM, LaVallie ER, Collins-Racie LA, Evans C;
PI Merberg D, Treacy M, Agostino MJ, Steininger RJ, Spaulding V;
PI Wong GG, Clark H, Fechtel K;
XX
DR WPI; 2002-040725/05.
DR N-PSDB; ABA90930.
XX
PT New secreted proteins and encoding polynucleotides, useful in gene
PT therapies, particularly for preventing or treating autoimmune
PT disorders, cancer, graft-versus-host disease, wound, osteoporosis,
PT stroke or inflammations -
XX
PS Disclosure; Page 255-256; 349pp; English.
XX
CC The invention relates to isolated polynucleotides (ABA90876-ABA90968 and
CC ABA90980) and encoded proteins (ABB55698-ABB55800), especially
CC polynucleotides SEQ ID NO 1 (ABA90876) and SEQ ID NO 19 (ABA90885) and
CC proteins SEQ ID NO 2 (ABB55698) and SEQ ID NO 20 (ABB55707) contained in
CC clones bd306-7 and yb8-1 respectively and the clones bd306-7 and yb8-1
CC are deposited with the American Type Culture Collection (ATCC) with
CC accession number 98599. The polynucleotides and encoded polypeptides have
CC cytostatic, anti-inflammatory, immunomodulator, vulnerary,
CC neuroprotective, activin, inhibin, chemotactic, hAemostatic, thrombolytic
CC and anti-inflammatory activity and acting as cytokine modulators,
CC haematopoiesis regulators, tissue growth modulators and/or cadherin
CC suppressors. The polypeptides and polynucleotides are useful in gene
CC therapies, particularly for preventing, treating or ameliorating any of
CC the following diseases: immune deficiency and disorders; e.g. bacterial
CC or fungal infections, autoimmune disorders, cancer, systemic lupus
CC erythematosus or graft-versus-host disease; myeloid or lymphoid cell
CC deficiencies; wound, burns, incisions and ulcers, osteoporosis or
CC osteoarthritis; central and peripheral nervous system diseases and
CC neuropathies, e.g. Alzheimer's, Parkinson's disease, Huntington's
CC disease, amyotrophic lateral sclerosis or Shy-Drager syndrome;
CC haemophilia, cardiac infarction or stroke; inflammations, shock, sepsis
CC or systemic inflammatory response syndrome, ischaemia-reperfusion
CC injury, endotoxin lethality, arthritis, inflammatory bowel disease or
CC Crohn's disease; or tumours or cancers, pemphigus vulgaris or pemphigus
CC foliaceus.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2539; DB 23; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.2e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYLIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
```

RESULT 5
AAY13372
ID AAY13372 standard; Protein; 476 AA.
XX
AC AAY13372;
XX
DT 25-JUN-1999 (first entry)
XX
DE Amino acid sequence of protein PRO223.
XX
KW Secreted protein; transmembrane protein; human; enterocolitis;
KW Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW congenital microvillus atrophy; skin disease; cell growth;
KW abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW anti-thrombotic; wound healing; tissue repair.
XX
OS Homo sapiens.
XX
PN WO9914328-A2.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-US19330.
XX
PR 25-NOV-1997; 97US-0066840.
PR 17-SEP-1997; 97US-0059113.

PR 17-SEP-1997; 97US-0059115.
PR 17-SEP-1997; 97US-0059117.
PR 17-SEP-1997; 97US-0059119.
PR 17-SEP-1997; 97US-0059121.
PR 17-SEP-1997; 97US-0059122.
PR 17-SEP-1997; 97US-0059184.
PR 18-SEP-1997; 97US-0059263.
PR 18-SEP-1997; 97US-0059266.
PR 15-OCT-1997; 97US-0062125.
PR 17-OCT-1997; 97US-0062285.
PR 17-OCT-1997; 97US-0062287.
PR 21-OCT-1997; 97US-0063486.
PR 24-OCT-1997; 97US-0062814.
PR 24-OCT-1997; 97US-0062816.
PR 24-OCT-1997; 97US-0063045.
PR 24-OCT-1997; 97US-0063120.
PR 24-OCT-1997; 97US-0063121.
PR 24-OCT-1997; 97US-0063127.
PR 24-OCT-1997; 97US-0063128.
PR 27-OCT-1997; 97US-0063329.
PR 27-OCT-1997; 97US-0063327.
PR 28-OCT-1997; 97US-0063541.
PR 28-OCT-1997; 97US-0063542.
PR 28-OCT-1997; 97US-0063544.
PR 28-OCT-1997; 97US-0063549.
PR 28-OCT-1997; 97US-0063550.
PR 28-OCT-1997; 97US-0063564.
PR 29-OCT-1997; 97US-0063435.
PR 29-OCT-1997; 97US-0063704.
PR 29-OCT-1997; 97US-0063732.
PR 29-OCT-1997; 97US-0063738.
PR 29-OCT-1997; 97US-0063734.
PR 29-OCT-1997; 97US-0064215.
PR 29-OCT-1997; 97US-0063735.
PR 31-OCT-1997; 97US-0063870.
PR 31-OCT-1997; 97US-0064103.
PR 03-NOV-1997; 97US-0064248.
PR 07-NOV-1997; 97US-0064809.
PR 12-NOV-1997; 97US-0065186.
PR 17-NOV-1997; 97US-0065846.
PR 18-NOV-1997; 97US-0065693.
PR 21-NOV-1997; 97US-0066120.
PR 21-NOV-1997; 97US-0066364.
PR 24-NOV-1997; 97US-0066772.
PR 24-NOV-1997; 97US-0066466.
PR 24-NOV-1997; 97US-0066770.
PR 24-NOV-1997; 97US-0066511.
PR 24-NOV-1997; 97US-0066453.
XX
PA (GETH) GENENTECH INC.
XX
PI Chen J, Goddard A, Gurney AL, Pennica D, Wood WI, Yuan J;
XX
DR WPI; 1999-229533/19.
DR N-PSDB; AAX52243.
XX
PT New isolated human genes and polypeptides used in, e.g. treatment of
PT gastrointestinal ulceration
XX
PS Claim 12; Fig 60; 320pp; English.
XX
CC AAY13344-403 represent secreted and transmembrane human proteins.
CC The cDNA sequences are obtained from cDNA libraries, prepared from
CC fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC The encoded polypeptides have specific uses based on their homology to
CC known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC associated with the preservation and maintenance of gastrointestinal
CC mucosa and the repair of acute and chronic mucosal lesions
CC (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC ulceration and congenital microvillus atrophy), skin diseases associated
CC with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC potent effects on cell growth and development, diseases related to
CC growth or survival of nerve cells including Parkinson's disease,
CC Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC for fibromodulin, e.g. for reducing dermal scarring. PRO264 can be used
CC as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC anti-thrombotic agent; PRO287 polypeptides and portions may have
CC therapeutic applications in wound healing and tissue repair; PRO317 can
CC be used for treating problems of the kidney, uterus, endometrium, blood
CC vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 20; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
```

RESULT 6
AAB01407
ID AAB01407 standard; Protein; 476 AA.
XX
AC AAB01407;
XX
DT 20-OCT-2000 (first entry)
XX
DE Human TANGO 176.
XX
KW TANGO; 221; 222; 176; 232; adipocyte; fat metabolism; obesity;
KW cachexia; cancer; jaundice; hepatitis; cirrhosis; cathepsin A;
KW hepatic disorder; neutrophil; monocyte; renal disorder;
KW intestinal disorder; pituitary disorder; adrenal cortex;
KW hypoadrenalism; hyperadrenalism; thyroid; bone; cartilage;
KW osteoarthritis; human.
XX
OS Homo sapiens.
XX
PN WO200039150-A2.
XX
PD 06-JUL-2000.
XX
PF 29-DEC-1999; 99WO-US31158.

```
XX
PR   30-DEC-1998;   98US-0223094.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Sharp JD;
XX
DR   WPI; 2000-465732/40.
DR   N-PSDB; AAA47444.
XX
PT   Novel nucleic acid molecule encoding secreted or membrane-associated
PT   proteins useful for identifying modulators and for treating disorders
PT   associated with spleen, bone, kidney, liver, pituitary and thyroid
PT   gland
XX
PS   Claim 8; Fig 5a-b; 129pp; English.
XX
CC   Human TANGO 221 and 222 nucleic acids, proteins and their modulators
CC   are useful for modulating adipocyte function and adipocyte disorders
CC   such as obesity and for treating disorders associated with abnormal fat
CC   metabolism e.g. cachexia and proliferation disorders such as cancer.
CC   Further TANGO 222 nucleic acids and proteins are useful for treating
CC   disorders associated with spleen and hepatic disorders such as
CC   jaundice, hepatitis, cirrhosis or malignant tumors. TANGO 176 nucleic
CC   acids, polypeptides and their modulators are useful for treating
CC   lysosomal protective protein cathepsin A-associated disorders such as
CC   galactosialidosis and disorders associated with a defect in neutrophil
CC   or monocyte chemotaxis. They are also useful for treating renal
CC   disorders, intestinal disorders, pituitary related disorders, adrenal
CC   cortex disorders such as hypoadrenalism, hyperadrenalism or neoplasia
CC   and disorders of the thyroid gland. TANGO 232 nucleic acids, proteins
CC   and their modulators are useful for treating cartilage and bone
CC   associated disease and disorders such as bone cancer and
CC   osteoarthritis.
XX
SQ   Sequence   476 AA;

  Query Match             99.4%;  Score 2538;  DB 21;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-240;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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RESULT 7
AAU29228
ID   AAU29228 standard; Protein; 476 AA.
XX
AC   AAU29228;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Human PRO polypeptide sequence #205.
XX
KW   PRO polypeptide; mammal; tumour; cancer; human; cattle; horse; sheep;
KW   dog; cat; pig; goat; rabbit; tumour necrosis factor alpha; TNF-alpha;
KW   blood; chondrocyte cell; cell proliferation; cell differentiation; colon;
KW   adrenal; lung; breast; prostate; rectum; cervix; liver; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200168848-A2.
XX
PD   20-SEP-2001.
XX
PF   28-FEB-2001; 2001WO-US06520.
XX
PR   01-MAR-2000; 2000WO-US05601.
PR   02-MAR-2000; 2000WO-US05841.
PR   03-MAR-2000; 2000US-187202P.
PR   06-MAR-2000; 2000US-186968P.
PR   14-MAR-2000; 2000US-189320P.
PR   14-MAR-2000; 2000US-189328P.
PR   15-MAR-2000; 2000WO-US06884.
PR   21-MAR-2000; 2000US-190828P.
PR   21-MAR-2000; 2000US-191007P.
PR   21-MAR-2000; 2000US-191048P.
PR   21-MAR-2000; 2000US-191314P.
PR   28-MAR-2000; 2000US-192655P.
PR   29-MAR-2000; 2000US-193032P.
PR   29-MAR-2000; 2000US-193053P.
PR   30-MAR-2000; 2000WO-US08439.
PR   04-APR-2000; 2000US-194449P.
PR   04-APR-2000; 2000US-194647P.
PR   11-APR-2000; 2000US-195975P.
PR   11-APR-2000; 2000US-196000P.
PR   11-APR-2000; 2000US-196187P.
PR   11-APR-2000; 2000US-196690P.
PR   11-APR-2000; 2000US-196820P.
PR   18-APR-2000; 2000US-198121P.
PR   18-APR-2000; 2000US-198585P.
PR   25-APR-2000; 2000US-199397P.
PR   25-APR-2000; 2000US-199550P.
PR   25-APR-2000; 2000US-199654P.
PR   03-MAY-2000; 2000US-201516P.
PR   17-MAY-2000; 2000WO-US13705.
PR   22-MAY-2000; 2000WO-US14042.
PR   30-MAY-2000; 2000WO-US14941.
PR   02-JUN-2000; 2000WO-US15264.
PR   05-JUN-2000; 2000US-209832P.
PR   28-JUL-2000; 2000WO-US20710.
PR   22-AUG-2000; 2000US-0644848.
PR   24-AUG-2000; 2000WO-US23328.
PR   08-NOV-2000; 2000WO-US30952.
PR   01-DEC-2000; 2000WO-US32678.
PR   20-DEC-2000; 2000WO-US34956.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Chen J,  Desnoyers L,  Goddard A,  Godowski PJ,  Gurney AL;
PI   Pan J,  Smith V,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2001-602746/68.
DR   N-PSDB; AAS46129.
XX
PT   Novel nucleic acids encoding PRO polypeptides, used to diagnose the
```

PT presence of tumours, such as prostate and breast tumours, in mammals and
PT to screen for modulators of the compounds -
XX
PS Claim 11; Fig 410; 774pp; English.
XX
CC Sequences AAU29024-AAU29328 represent PRO polypeptides of the invention.
CC The PRO polypeptides and their associated nucleic acids can be used to
CC detect the presence of a tumour in a mammal by comparing the level of
CC expression of a PRO polypeptide in a test sample of cells from the animal
CC and a control sample of normal cells, whereby a higher level of
CC expression in the test sample indicates the presence of a tumour in the
CC mammal. Mammals include dogs, cats, cattle, horses, sheep, pigs, goats
CC and rabbits but are preferably human. The polypeptides can be used to
CC stimulate tumour necrosis factor (TNF) alpha release from human blood,
CC when contacted with it. A specific polypeptide can be used to stimulate
CC the proliferation or differentiation of chondrocyte cells. The PRO
CC proteins can be used to determine the presence of tumours and also
CC susceptibility to tumour development, particularly adrenal, lung, colon,
CC breast, prostate, rectal, cervical, or liver tumours, in mammalian
CC subjects. The oligonucleotide probes specific for the PRO nucleic acids
CC can be used for genetic analysis of individuals with genetic disorders.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 22; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
```

RESULT 8
AAB80240
ID AAB80240 standard; Protein; 476 AA.
XX
AC AAB80240;
XX
DT 24-APR-2001 (first entry)
XX
DE Human PRO223 protein.
XX
KW Human; PRO; dermatological; antipsoriatic; cytostatic; antiinflammatory;
KW antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant;
KW antiangiogenic; vasotropic; antiasthmatic; antirheumatic; cancer;
KW antiarthritic; antiinfertility; antidiabetic; antiviral; diabetes;
KW ophthalmological; gene therapy; skin disease; gastrointestinal disorder;
KW ischaemia; inflammation.
XX
OS Homo sapiens.
XX
PN WO200104311-A1.
XX
PD 18-JAN-2001.
XX
PF 22-FEB-2000; 2000WO-US04414.
XX
PR 07-JUL-1999; 99US-0143048.
PR 26-JUL-1999; 99US-0145698.
PR 28-JUL-1999; 99US-0146222.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 20-DEC-1999; 99WO-US30999.
PR 05-JAN-2000; 99WO-US00219.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi CJ, Gurney AL, Hillan KJ, Kljavin IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX
DR WPI; 2001-081051/09.
DR N-PSDB; AAF72401.
XX
PT Sixty one nucleic acids encoding PRO polypeptides which are useful in
PT the treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung
PT squamous cell carcinoma) and neurodegenerative diseases (e.g.
PT Alzheimer's disease) -
XX
PS Claim 1; Fig 60; 393pp; English.
XX
CC The present sequence is one of sixty one novel secreted and
CC transmembrane PRO polypeptides. The PRO polypeptides are
CC useful for treating skin diseases (e.g. psoriasis), cancers (e.g. lung
CC squamous cell carcinoma), gastrointestinal disorders (e.g.
CC enterocolitis), neurodegenerative diseases (e.g. Alzheimer's disease,
CC Parkinson's disease), wound repair, cardiovascular disorders (e.g.
CC endometrial bleeding angiogenesis, ischaemias such as coronary
CC ischaemia, atherosclerosis), inflammatory disorders (e.g. asthma,
CC rheumatoid arthritis, multiple sclerosis), infertility, AIDS and
CC diabetes and retinal disorders such as retinitis pigmentosum.
CC The PRO nucleic acids have applications in molecular biology, including
CC use as hybridization probes, and in chromosome and gene mapping.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 22; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
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Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120
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Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
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Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
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Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
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Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 9
ABU69650
ID   ABU69650 standard; Protein; 476 AA.
XX
AC   ABU69650;
XX
DT   05-JUN-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO223.
XX
KW   Human; secreted and transmembrane protein; gene therapy; psoriasis;
KW   enterocolitis; gastrointestinal ulceration; skin disease;
KW   keratinocyte differentiation; epithelial cancer; Alzheimer's disease;
KW   squamous cell carcinoma; Parkinson's disease; inflammatory disease;
KW   amyotrophic lateral sclerosis; rheumatoid arthritis; asthma;
KW   multiple sclerosis; organ failure; atherosclerosis; cardiac injury;
KW   infertility; birth defect; premature aging; AIDS; cancer;
KW   diabetic complication; wound repair; tissue re-growth.
XX
OS   Homo sapiens.
XX
PN   US2003017463-A1.
XX
PD   23-JAN-2003.
XX
PF   11-JUL-2001; 2001US-0903640.
XX
PR   10-SEP-1998;   98WO-US18824.
PR   14-SEP-1998;   98WO-US19177.
PR   16-SEP-1998;   98WO-US19330.
PR   17-SEP-1998;   98WO-US19437.
PR   01-DEC-1998;   98WO-US25108.
PR   08-SEP-1999;   99WO-US20594.
PR   13-SEP-1999;   99WO-US20944.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   05-OCT-1999;   99WO-US23089.
PR   29-NOV-1999;   99WO-US28214.
PR   30-NOV-1999;   99WO-US28313.
PR   01-DEC-1999;   99WO-US28301.
PR   02-DEC-1999;   99WO-US28564.
PR   02-DEC-1999;   99WO-US28565.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30911.
PR   20-DEC-1999;   99WO-US30999.
PR   05-JAN-2000; 2000WO-US00219.
PR   11-FEB-2000; 2000WO-US03565.
PR   22-FEB-2000; 2000WO-US04414.
PR   24-FEB-2000; 2000WO-US05004.
PR   02-MAR-2000; 2000WO-US05841.
PR   20-MAR-2000; 2000WO-US07377.
PR   30-MAR-2000; 2000WO-US08439.
PR   22-MAY-2000; 2000WO-US14042.
PR   02-JUN-2000; 2000WO-US15264.
PR   28-JUL-2000; 2000WO-US20710.
PR   24-AUG-2000; 2000WO-US23328.
PR   17-SEP-1997;   97US-059113P.
PR   17-SEP-1997;   97US-059115P.
PR   17-SEP-1997;   97US-059117P.
PR   17-SEP-1997;   97US-059119P.
PR   17-SEP-1997;   97US-059121P.
PR   17-SEP-1997;   97US-059122P.
PR   17-SEP-1997;   97US-059184P.
PR   18-SEP-1997;   97US-059263P.
PR   18-SEP-1997;   97US-059266P.
PR   15-OCT-1997;   97US-062125P.
PR   17-OCT-1997;   97US-062285P.
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PR   21-OCT-1997;   97US-063486P.
PR   24-OCT-1997;   97US-062814P.
PR   24-OCT-1997;   97US-062816P.
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PR   24-OCT-1997;   97US-063120P.
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PR   24-OCT-1997;   97US-063128P.
PR   27-OCT-1997;   97US-063327P.
PR   27-OCT-1997;   97US-063329P.
PR   28-OCT-1997;   97US-063541P.
PR   28-OCT-1997;   97US-063542P.
PR   28-OCT-1997;   97US-063544P.
PR   28-OCT-1997;   97US-063549P.
PR   28-OCT-1997;   97US-063550P.
PR   28-OCT-1997;   97US-063564P.
PR   29-OCT-1997;   97US-063435P.
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PR   29-OCT-1997;   97US-063732P.
PR   29-OCT-1997;   97US-063734P.
PR   29-OCT-1997;   97US-063735P.
PR   29-OCT-1997;   97US-063738P.
PR   29-OCT-1997;   97US-064215P.
PR   31-OCT-1997;   97US-063870P.
PR   31-OCT-1997;   97US-064103P.
PR   03-NOV-1997;   97US-064248P.
PR   07-NOV-1997;   97US-064809P.
PR   12-NOV-1997;   97US-065186P.
PR   17-NOV-1997;   97US-065846P.
PR   18-NOV-1997;   97US-065693P.
PR   21-NOV-1997;   97US-066120P.
PR   21-NOV-1997;   97US-066364P.
PR   24-NOV-1997;   97US-066453P.
PR   24-NOV-1997;   97US-066466P.
PR   24-NOV-1997;   97US-066511P.
PR   24-NOV-1997;   97US-066770P.
PR   24-NOV-1997;   97US-066772P.
PR   25-NOV-1997;   97US-066840P.
PR   12-DEC-1997;   97US-069425P.
PR   04-JUN-1998;   98US-088026P.
PR   10-SEP-1998;   98US-099803P.
PR   14-SEP-1998;   98US-100262P.
PR   17-SEP-1998;   98US-100858P.
PR   13-OCT-1998;   98US-104080P.
PR   20-NOV-1998;   98US-109304P.
PR   22-DEC-1998;   98US-113296P.
PR   07-JUL-1999;   99US-143048P.
PR   26-JUL-1999;   99US-145698P.
PR   28-JUL-1999;   99US-146222P.
PR   18-SEP-2000; 2000US-0665350.
XX
PA   (GETH ) GENENTECH INC.
XX
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PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX
DR WPI; 2003-341586/32.
DR N-PSDB; ACA54942.
XX
PT New PRO polypeptides and nucleic acid molecules, useful in diagnosing
PT or treating inflammatory diseases, organ failure, atherosclerosis,
PT cardiac injury, infertility, cancer, AIDS, Alzheimer's disease or
PT Parkinson's disease -
XX
PS Claim 12; Fig 60; 473pp; English.
XX
CC The invention describes sixty one nucleic acids encoding PRO polypeptides
CC (secreted and transmembrane). The PRO polypeptides and nucleic acids are
CC useful in diagnosing or treating enterocolitis, gastrointestinal
CC ulceration, skin diseases associated with abnormal keratinocyte
CC differentiation, e.g. psoriasis or epithelial cancers such as squamous
CC cell carcinoma, Alzheimer's disease, Parkinson's disease, amyotrophic
CC lateral sclerosis, inflammatory diseases, e.g. rheumatoid arthritis,
CC asthma or multiple sclerosis, organ failure, atherosclerosis, cardiac
CC injury, infertility, birth defects, premature aging, AIDS, cancer,
CC diabetic complications, or mutations in general. The polypeptides are
CC also useful for wound repair and associated therapies concerned with
CC re-growth of tissue. The PRO polypeptides and nucleic acid molecules
CC are also useful in gene therapy, and as molecular weight markers for
CC protein electrophoresis purposes. The anti-PRO antibodies may be used
CC in diagnostic assays for PRO, or for the affinity purification of PRO
CC from recombinant cell culture or natural sources. This is the amino
CC acid sequence of a novel human PRO polypeptide.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
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Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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RESULT 10
ABU71316
ID ABU71316 standard; Protein; 476 AA.
XX
AC ABU71316;
XX
DT 10-JUN-2003 (first entry)
XX
DE Human PRO223 protein.
XX
KW Human; PRO; secreted; transmembrane; cytostatic; TNF-alpha; blood;
KW tumour necrosis factor alpha release; chondrocyte cell; proliferation;
KW differentiation; tumour; gene therapy.
XX
OS Homo sapiens.
XX
PN US2003036143-A1.
XX
PD 20-FEB-2003.
XX
PF 02-JUL-2002; 2002US-0187600.
XX
PR 16-SEP-1998; 98WO-US19330.
PR 07-OCT-1998; 98WO-US21141.
PR 01-DEC-1998; 98WO-US25108.
PR 08-MAR-1999; 99WO-US05028.
PR 14-MAY-1999; 99WO-US10733.
PR 02-JUN-1999; 99WO-US12252.
PR 01-SEP-1999; 99WO-US20111.
PR 15-SEP-1999; 99WO-US21090.
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PR 02-DEC-1999; 99WO-US28551.
PR 30-DEC-1999; 99WO-US31274.
PR 05-JAN-2000; 2000WO-US00219.
PR 18-FEB-2000; 2000WO-US04341.
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PR 24-FEB-2000; 2000WO-US05004.
PR 01-MAR-2000; 2000WO-US05601.
PR 02-MAR-2000; 2000WO-US05841.
PR 15-MAR-2000; 2000WO-US06884.
PR 30-MAR-2000; 2000WO-US08439.
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PR 30-MAY-2000; 2000WO-US14941.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 24-AUG-2000; 2000WO-US23328.
PR 08-NOV-2000; 2000WO-US30952.
PR 01-DEC-2000; 2000WO-US32678.
PR 20-DEC-2000; 2000WO-US34956.
PR 28-FEB-2001; 2001WO-US06520.
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PR 20-JUN-2001; 2001WO-US19692.
PR 29-JUN-2001; 2001WO-US21066.
PR 09-JUL-2001; 2001WO-US21735.
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PR 18-SEP-1997; 97US-059263P.
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PR 22-MAY-1998; 98US-086392P.
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PR 04-JUN-1998; 98US-088025P.
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PR 11-JUN-1998; 98US-088861P.
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PR 12-JUN-1998; 98US-089090P.
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PR 16-JUN-1998; 98US-089512P.
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PR 01-JUL-1998; 98US-091359P.
PR 01-JUL-1998; 98US-091544P.
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PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091632P.
PR 24-JUL-1998; 98US-094006P.
PR 04-AUG-1998; 98US-095282P.
PR 10-AUG-1998; 98US-095998P.
PR 10-AUG-1998; 98US-096012P.
PR 17-AUG-1998; 98US-096757P.
PR 17-AUG-1998; 98US-096766P.
PR 17-AUG-1998; 98US-096867P.
PR 17-AUG-1998; 98US-096891P.
PR 17-AUG-1998; 98US-096897P.
PR 18-AUG-1998; 98US-096949P.
PR 18-AUG-1998; 98US-096959P.
PR 18-AUG-1998; 98US-097022P.
PR 26-AUG-1998; 98US-097952P.
PR 26-AUG-1998; 98US-097954P.
PR 26-AUG-1998; 98US-097955P.
PR 26-AUG-1998; 98US-097971P.
PR 26-AUG-1998; 98US-097974P.
PR 26-AUG-1998; 98US-098014P.
PR 01-SEP-1998; 98US-098716P.
PR 01-SEP-1998; 98US-098723P.
PR 02-SEP-1998; 98US-098803P.
PR 02-SEP-1998; 98US-098821P.
PR 02-SEP-1998; 98US-098843P.
PR 09-SEP-1998; 98US-099602P.
PR 10-SEP-1998; 98US-099741P.
PR 10-SEP-1998; 98US-099754P.
PR 10-SEP-1998; 98US-099763P.
PR 10-SEP-1998; 98US-099812P.

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
```

```
Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
```

RESULT 11
ABU71473
ID ABU71473 standard; Protein; 476 AA.
XX
AC ABU71473;
XX
DT 10-JUN-2003 (first entry)
XX
DE Human PRO polypeptide #29.
XX
KW Human; secreted and transmembrane protein; PRO polypeptide; cancer;
KW Alzheimer's disease; ischaemia; cytostatic; nootropic; vasotropic;
KW neuroprotective.
XX
OS Homo sapiens.
XX
PN US2002192659-A1.
XX
PD 19-DEC-2002.
XX
PF 10-JUL-2001; 2001US-0902853.
XX
PR 10-SEP-1998; 98WO-US18824.
PR 14-SEP-1998; 98WO-US19177.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 01-DEC-1998; 98WO-US25108.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 01-DEC-1999; 99WO-US28301.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 20-DEC-1999; 99WO-US30999.
PR 05-JAN-2000; 2000WO-US00219.
PR 11-FEB-2000; 2000WO-US03565.
PR 22-FEB-2000; 2000WO-US04414.
PR 28-JUL-2000; 2000WO-US20710.
PR 24-AUG-2000; 2000WO-US23328.
PR 17-SEP-1997; 97US-059113P.
PR 17-SEP-1997; 97US-059115P.
PR 17-SEP-1997; 97US-059117P.
PR 18-SEP-1997; 97US-059266P.
PR 15-OCT-1997; 97US-062125P.
PR 17-OCT-1997; 97US-062285P.
PR 17-OCT-1997; 97US-062287P.
PR 21-OCT-1997; 97US-063486P.
PR 24-OCT-1997; 97US-062814P.
PR 24-OCT-1997; 97US-062816P.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX
DR WPI; 2003-361832/34.
DR N-PSDB; ACA58427.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO245 or
PT PRO1868, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy -
XX
PS Claim 12; Fig 60; 474pp; English.
XX
CC The present invention relates to the isolation of novel human secreted
CC and transmembrane proteins (PRO polypeptides), and the polynucleotide
CC sequences encoding them. The polynucleotide sequences are useful in
CC molecular biology, as hybridisation probes, in chromosome and gene
CC mapping, in generating antisense RNA and DNA, and in gene therapy. The
CC polynucleotide sequences may also be used in preparing PRO polypeptides
CC by recombinant techniques, and in generating either transgenic animals
CC or knock-out animals which, in turn, are useful in the development and
CC screening of therapeutically useful reagents. The PRO polypeptides or
CC their antibodies are useful in preparing a medicament for treating a
CC condition responsive to the polypeptide or antibody, such as cancer,
CC Alzheimer's disease or ischaemia, and in various diagnostic assays.
CC ABU71445-ABU71505 represent human PRO polypeptides of the invention.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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RESULT 12

ABU71919
ID ABU71919 standard; Protein; 476 AA.
XX
AC ABU71919;
XX
DT 12-JUN-2003 (first entry)
XX
DE Human secreted/transmembrane protein PRO223.
XX
KW Human; secreted protein; transmembrane protein; PRO;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003003530-A1.
XX
PD 02-JAN-2003.
XX
PF 11-JUL-2001; 2001US-0904011.
XX
PR 10-SEP-1998; 98WO-US18824.
PR 14-SEP-1998; 98WO-US19177.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 01-DEC-1998; 98WO-US25108.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 01-DEC-1999; 99WO-US28301.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 20-DEC-1999; 99WO-US30999.
PR 05-JAN-2000; 2000WO-US00219.
PR 11-FEB-2000; 2000WO-US03565.
PR 22-FEB-2000; 2000WO-US04414.
PR 24-FEB-2000; 2000WO-US05004.
PR 02-MAR-2000; 2000WO-US05841.
PR 20-MAR-2000; 2000WO-US07377.
PR 30-MAR-2000; 2000WO-US08439.
PR 22-MAY-2000; 2000WO-US14042.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 24-AUG-2000; 2000WO-US23328.
PR 17-SEP-1997; 97US-059113P.
PR 17-SEP-1997; 97US-059115P.
PR 17-SEP-1997; 97US-059117P.
PR 17-SEP-1997; 97US-059119P.
PR 17-SEP-1997; 97US-059121P.
PR 17-SEP-1997; 97US-059122P.
PR 17-SEP-1997; 97US-059184P.
PR 18-SEP-1997; 97US-059263P.
PR 18-SEP-1997; 97US-059266P.
PR 15-OCT-1997; 97US-062125P.
PR 17-OCT-1997; 97US-062285P.
PR 17-OCT-1997; 97US-062287P.
PR 21-OCT-1997; 97US-063486P.
PR 24-OCT-1997; 97US-062814P.
PR 24-OCT-1997; 97US-062816P.
PR 24-OCT-1997; 97US-063045P.
PR 24-OCT-1997; 97US-063120P.
PR 24-OCT-1997; 97US-063121P.
PR 24-OCT-1997; 97US-063127P.
PR 24-OCT-1997; 97US-063128P.
PR 27-OCT-1997; 97US-063327P.
PR 27-OCT-1997; 97US-063329P.
PR 28-OCT-1997; 97US-063541P.
PR 28-OCT-1997; 97US-063542P.
PR 28-OCT-1997; 97US-063544P.
PR 28-OCT-1997; 97US-063549P.
PR 28-OCT-1997; 97US-063550P.
PR 28-OCT-1997; 97US-063564P.
PR 29-OCT-1997; 97US-063435P.
PR 29-OCT-1997; 97US-063704P.
PR 29-OCT-1997; 97US-063732P.
PR 29-OCT-1997; 97US-063734P.
PR 29-OCT-1997; 97US-063735P.
PR 29-OCT-1997; 97US-063738P.
PR 29-OCT-1997; 97US-064215P.
PR 31-OCT-1997; 97US-063870P.
PR 31-OCT-1997; 97US-064103P.
PR 03-NOV-1997; 97US-064248P.
PR 07-NOV-1997; 97US-064809P.
PR 12-NOV-1997; 97US-065186P.
PR 17-NOV-1997; 97US-065846P.
PR 18-NOV-1997; 97US-065693P.
PR 21-NOV-1997; 97US-066120P.
PR 21-NOV-1997; 97US-066364P.
PR 24-NOV-1997; 97US-066453P.
PR 24-NOV-1997; 97US-066466P.
PR 24-NOV-1997; 97US-066511P.
PR 24-NOV-1997; 97US-066770P.
PR 24-NOV-1997; 97US-066772P.
PR 18-SEP-2000; 2000US-0665350.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX
DR WPI; 2003-329602/31.
DR N-PSDB; ACA60134.
XX
PT New transmembrane polypeptides and nucleic acids encoding the
PT polypeptides, useful in gene therapy, in chromosome identification, as
PT chromosome markers, in generating probes and in tissue typing -
XX
PS Claim 12; Fig 60; 484pp; English.
XX
CC The invention relates to an isolated nucleic acid with at least 80%
CC nucleic acid sequence identity to a nucleotide sequence encoding one of
CC 61 secreted/transmembrane polypeptides, or PRO polypeptides or encoding a
CC PRO protein extracellular domain. Also included are a vector comprising
CC the PRO nucleic acid, a host cell comprising the vector, producing a PRO
CC polypeptide (by culturing the host cell for the expression of the PRO
CC polypeptide, and recovering the PRO polypeptide from the cell culture),
CC an isolated PRO polypeptide (having at least 80% sequence identity
CC to: (a) an amino acid sequence selected from the 61 PRO proteins;
CC (b) an amino acid sequence encoded by a nucleic acid molecule deposited
CC with an ATCC number (detailed in the specification); or (c) an
CC extracellular domain of a PRO polypeptide or to a PRO polypeptide lacking
CC its associated signal peptide), a chimaeric molecule comprising a PRO
CC polypeptide of fused to a heterologous amino acid sequence, an anti-PRO
CC antibody, detecting a PRO245 or PRO1868 in a sample suspected of
CC containing the polypeptide, linking a bioactive molecule to a cell
CC expressing a PRO245 or PRO1868 and modulating at least one biological
CC activity of a cell expressing a PRO245 or PRO1868. Nucleic acids which
CC encode PRO can be used to generate either transgenic animals or knock-out
CC animals which may be used in the development and screening of
CC therapeutically useful reagents. The nucleic acids may also be used in
CC gene therapy, in chromosome identification, as chromosome markers, or in
CC generating probes. The PRO polypeptides are useful as molecular markers
CC for protein electrophoresis, and the isolated nucleic acids may be used
CC for recombinantly expressing those markers. The PRO polypeptides and
CC nucleic acids may also be used in tissue typing. Anti-PRO antibodies
CC are useful in diagnostic assays for PRO, and in affinity purification
CC of PRO from recombinant cell culture or natural sources. The
CC present sequence represents a PRO protein.

```
XX
SQ   Sequence   476 AA;

  Query Match             99.4%;  Score 2538;  DB 24;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-240;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 13
ABU65773
ID   ABU65773 standard; Protein; 476 AA.
XX
AC   ABU65773;
XX
DT   19-MAY-2003  (first entry)
XX
DE   Human secreted/transmembrane protein, SEQ ID 410.
XX
KW   Human; PRO; secreted protein; transmembrane protein;
KW   cytostatic; antiarthritic; osteopathic; adrenal tumour; lung tumour;
KW   colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; TNF-alpha release; arthritis;
KW   tumour necrosis factor alpha; chondrocyte cell; bone disorder;
KW   cartilage disorder; sports injury.
XX
OS   Homo sapiens.
XX
PN   US2003036156-A1.
XX
PD   20-FEB-2003.
XX
PF   02-JUL-2002; 2002US-0188767.
XX
PR   16-SEP-1998;   98WO-US19330.
PR   07-OCT-1998;   98WO-US21141.
PR   01-DEC-1998;   98WO-US25108.
PR   08-MAR-1999;   99WO-US05028.
PR   14-MAY-1999;   99WO-US10733.
PR   02-JUN-1999;   99WO-US12252.
PR   01-SEP-1999;   99WO-US20111.
PR   15-SEP-1999;   99WO-US21090.
PR   01-DEC-1999;   99WO-US28301.
PR   02-DEC-1999;   99WO-US28551.
PR   30-DEC-1999;   99WO-US31274.
PR   05-JAN-2000; 2000WO-US00219.
PR   18-FEB-2000; 2000WO-US04341.
PR   18-FEB-2000; 2000WO-US04342.
PR   22-FEB-2000; 2000WO-US04414.
PR   24-FEB-2000; 2000WO-US05004.
PR   01-MAR-2000; 2000WO-US05601.
PR   02-MAR-2000; 2000WO-US05841.
PR   15-MAR-2000; 2000WO-US06884.
PR   30-MAR-2000; 2000WO-US08439.
PR   17-MAY-2000; 2000WO-US13705.
PR   22-MAY-2000; 2000WO-US14042.
PR   30-MAY-2000; 2000WO-US14941.
PR   02-JUN-2000; 2000WO-US15264.
PR   28-JUL-2000; 2000WO-US20710.
PR   24-AUG-2000; 2000WO-US23328.
PR   08-NOV-2000; 2000WO-US30952.
PR   01-DEC-2000; 2000WO-US32678.
PR   20-DEC-2000; 2000WO-US34956.
PR   28-FEB-2001; 2001WO-US06520.
PR   01-JUN-2001; 2001WO-US17800.
PR   20-JUN-2001; 2001WO-US19692.
PR   29-JUN-2001; 2001WO-US21066.
PR   09-JUL-2001; 2001WO-US21735.
PR   29-AUG-2001; 2001WO-US27099.
PR   18-SEP-1997;   97US-059263P.
PR   18-SEP-1997;   97US-059266P.
PR   17-OCT-1997;   97US-062250P.
PR   21-OCT-1997;   97US-063486P.
PR   24-OCT-1997;   97US-063120P.
PR   24-OCT-1997;   97US-063121P.
PR   28-OCT-1997;   97US-063540P.
PR   28-OCT-1997;   97US-063541P.
PR   28-OCT-1997;   97US-063544P.
PR   28-OCT-1997;   97US-063564P.
PR   29-OCT-1997;   97US-063734P.
PR   31-OCT-1997;   97US-063870P.
PR   31-OCT-1997;   97US-064103P.
PR   13-NOV-1997;   97US-065311P.
PR   21-NOV-1997;   97US-066120P.
PR   24-NOV-1997;   97US-066466P.
PR   24-NOV-1997;   97US-066772P.
PR   11-DEC-1997;   97US-069335P.
PR   12-DEC-1997;   97US-069425P.
PR   17-DEC-1997;   97US-069870P.
PR   18-DEC-1997;   97US-068017P.
PR   10-MAR-1998;   98US-077450P.
PR   11-MAR-1998;   98US-077632P.
PR   11-MAR-1998;   98US-077649P.
PR   20-MAR-1998;   98US-078886P.
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PR   27-MAR-1998;   98US-079664P.
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Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
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Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
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RESULT 14
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DT 20-MAY-2003 (first entry)
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KW Human; secreted protein; transmembrane protein; cytostatic;
KW gene Therapy; TNF-Agonist-Alpha; chondrocyte stimulator; tumour;

KW adrenal tumour; lung tumour; colon tumour; breast tumour;
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.
XX
OS Homo sapiens.
XX
PN US2003036157-A1.
XX
PD 20-FEB-2003.
XX
PF 02-JUL-2002; 2002US-0188769.
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PR 16-SEP-1998; 98WO-US19330.
PR 07-OCT-1998; 98WO-US21141.
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PR 14-MAY-1999; 99WO-US10733.
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Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
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RESULT 15
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DT   29-MAY-2003  (first entry)
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KW   Human; gene therapy; mucosal lesion; ulcer; enterocolitis; skin disease;
KW   psoriasis; cancer; lung cancer; colon cancer; nerve cell disease;
KW   Alzheimer's disease; Parkinson's disease; Usher syndrome; angiogenesis;
KW   atrophia areata; inflammatory disease; asthma; rheumatoid arthritis;
KW   ischaemia.
XX
OS   Homo sapiens.
XX
PN   US2003023054-A1.
XX
PD   30-JAN-2003.
XX
PF   16-JUL-2001; 2001US-0906742.
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PR   16-SEP-1998;   98WO-US19330.
PR   17-SEP-1998;   98WO-US19437.
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PR   30-NOV-1999;   99WO-US28313.
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PR   02-DEC-1999;   99WO-US28565.
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PR   20-DEC-1999;   99WO-US30999.
PR   05-JAN-2000;  2000WO-US00219.
PR   11-FEB-2000;  2000WO-US03565.
PR   22-FEB-2000;  2000WO-US04414.
PR   24-FEB-2000;  2000WO-US05004.
PR   02-MAR-2000;  2000WO-US05841.
PR   20-MAR-2000;  2000WO-US07377.
PR   30-MAR-2000;  2000WO-US08439.
PR   22-MAY-2000;  2000WO-US14042.
PR   02-JUN-2000;  2000WO-US15264.
PR   28-JUL-2000;  2000WO-US20710.
PR   24-AUG-2000;  2000WO-US23328.
PR   17-SEP-1997;   97US-059113P.
PR   17-SEP-1997;   97US-059115P.
PR   17-SEP-1997;   97US-059117P.
PR   17-SEP-1997;   97US-059119P.
PR   17-SEP-1997;   97US-059121P.
PR   17-SEP-1997;   97US-059122P.
PR   17-SEP-1997;   97US-059184P.
PR   18-SEP-1997;   97US-059263P.
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PR   15-OCT-1997;   97US-062125P.
PR   17-OCT-1997;   97US-062285P.
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PR 17-OCT-1997; 97US-062287P.
PR 21-OCT-1997; 97US-063486P.
PR 24-OCT-1997; 97US-062814P.
PR 24-OCT-1997; 97US-062816P.
PR 24-OCT-1997; 97US-063045P.
PR 24-OCT-1997; 97US-063120P.
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PR 12-DEC-1997; 97US-069425P.
PR 04-JUN-1998; 98US-088026P.
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PR 07-JUL-1999; 99US-143048P.
PR 26-JUL-1999; 99US-145698P.
PR 28-JUL-1999; 99US-146222P.
PR 18-SEP-2000; 2000US-0665350.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX
DR WPI; 2003-331485/31.
DR N-PSDB; ACA05472.
XX
PT Sixty one isolated nucleic acids encoding a PRO polypeptide, e.g.
PT PRO245 or PRO1868, useful in chromosome and gene mapping, in generating
PT antisense RNA and DNA, and in treating cancer and Alzheimer's disease -
XX
PS Example 27; Fig 60; 481pp; English.
XX
CC The invention relates to sixty one nucleic acids encoding PRO
CC polypeptides (secreted and transmembrane). The polynucleotide is useful
CC in molecular biology, including uses as hybridisation probes, in
CC chromosome and gene mapping, in generating antisense RNA and DNA, and in
CC gene therapy. The polynucleotide may also be used in preparing PRO
CC polypeptides by recombinant techniques, and in generating either
CC transgenic animals or knock-out animals which, in turn, are useful in the
CC development and screening of therapeutically useful reagents. The PRO
CC polypeptide or the antibody is used in preparing a medicament for
CC treating a condition responsive to the polypeptide or antibody, such as
CC mucosal lesions e.g. ulcers and enterocolitis, skin disease e.g.
CC psoriasis, cancer e.g. lung cancer and colon cancer, nerve cell disease
CC e.g. Alzheimer's disease and Parkinson's disease, Usher syndrome,
CC atrophia areata, angiogenesis, inflammatory disease e.g asthma and
CC rheumatoid arthritis, ischaemia, and in various diagnostic assays. The
CC present sequence represents the amino acid sequence of a PRO polypeptide.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Job time : 51 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:42:09 ; Search time 21 Seconds
(without alignments)
959.046 Million cell updates/sec

Title: US-10-084-018-3
Perfect score: 2554
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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2550	99.8	476	2	US-08-828-488-3	Sequence 3, Appli
2	2550	99.8	476	4	US-09-299-689A-3	Sequence 3, Appli
3	2512.5	98.4	477	2	US-08-828-488-1	Sequence 1, Appli
4	2512.5	98.4	477	4	US-09-299-689A-1	Sequence 1, Appli
5	1772.5	69.4	351	2	US-08-828-488-5	Sequence 5, Appli
6	1772.5	69.4	351	4	US-09-299-689A-5	Sequence 5, Appli
7	1014	39.7	471	2	US-08-828-488-7	Sequence 7, Appli
8	1014	39.7	471	4	US-09-299-689A-7	Sequence 7, Appli
9	557	21.8	480	2	US-08-828-488-8	Sequence 8, Appli
10	557	21.8	480	4	US-09-299-689A-8	Sequence 8, Appli
11	557	21.8	480	4	US-09-702-705-336	Sequence 336, App
12	557	21.8	480	4	US-09-736-457-336	Sequence 336, App
13	498.5	19.5	491	1	US-09-640-305-4	Sequence 4, Appli
14	498.5	19.5	491	1	US-08-360-673-4	Sequence 4, Appli
15	472.5	18.5	557	1	US-08-309-341-2	Sequence 2, Appli
16	472.5	18.5	557	1	US-08-608-267-2	Sequence 2, Appli
17	472.5	18.5	557	1	US-08-608-452-2	Sequence 2, Appli
18	472.5	18.5	557	1	US-08-608-224-2	Sequence 2, Appli
19	472.5	18.5	557	2	US-08-967-149-2	Sequence 2, Appli
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24	455.5	17.8	557	2	US-08-967-149-4	Sequence 4, Appli
25	432	16.9	532	2	US-08-899-324-33	Sequence 33, Appl
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27	427	16.7	421	2	US-08-807-263-4	Sequence 4, Appli
28	379.5	14.9	423	3	US-08-943-714-9	Sequence 9, Appli
29	361	14.1	554	3	US-08-943-714-2	Sequence 2, Appli
30	352	13.8	446	1	US-08-665-966-10	Sequence 10, Appl
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34	278	10.9	530	3	US-08-943-714-12	Sequence 12, Appl
35	235	9.2	179	1	US-08-665-966-8	Sequence 8, Appli
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38	102	4.0	622	2	US-08-664-646A-2	Sequence 2, Appli
39	102	4.0	622	2	US-09-066-285-2	Sequence 2, Appli
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45	102	4.0	622	4	US-09-693-554-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1
US-08-828-488-3
; Sequence 3, Application US/08828488
; Patent No. 5925521
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/828,488
; FILING DATE: Filed Herewith
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 476 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: MMLR3DT01
; CLONE: 566993
US-08-828-488-3

Query Match 99.8%; Score 2550; DB 2; Length 476;

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  Matches  476;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
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RESULT 2
US-09-299-689A-3
; Sequence 3, Application US/09299689A
; Patent No. 6379913
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/299,689A
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/828,488
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  476 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  MMLR3DT01
;      CLONE:  566993
US-09-299-689A-3

  Query Match             99.8%;  Score 2550;  DB 4;  Length 476;
  Best Local Similarity   100.0%;  Pred. No. 1e-259;
  Matches  476;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 3
US-08-828-488-1
; Sequence 1, Application US/08828488
; Patent No. 5925521
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
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;       SOFTWARE:  FastSEQ for Windows Version 2.0
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/828,488
;       FILING DATE:  Filed Herewith
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:
;       FILING DATE:
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Billings, Lucy J.
;       REGISTRATION NUMBER:  36,749
;       REFERENCE/DOCKET NUMBER:  PF-0241 US
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  415-855-0555
;       TELEFAX:  415-845-4166
;   INFORMATION FOR SEQ ID NO:  1:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  477 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     IMMEDIATE SOURCE:
;       LIBRARY:  MPHGNOT03
;       CLONE:  443004
US-08-828-488-1

  Query Match             98.4%;  Score 2512.5;  DB 2;  Length 477;
  Best Local Similarity   98.5%;  Pred. No. 9e-256;
  Matches  470;  Conservative    0;  Mismatches    6;  Indels    1;  Gaps    1;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||| |||||||||||||||||||||||||||||||| |||||| ||
Db         61 SLVGPFPGLNMKSYADFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGEPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAE-KKVW 419
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKKVW 420

Qy        420 KIFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||| |||||||||||||||||| ||||||||||||||||||||||||||||
Db        421 KIFKSDSGVAGYIRQVGDFHQVIIRGGGHTLPYDQPLRAFDMINRFIYGKGWDPYVG 477


RESULT 4
US-09-299-689A-1
; Sequence 1, Application US/09299689A
; Patent No. 6379913
;  GENERAL INFORMATION:
;     APPLICANT:  Bandman, Olga
;     APPLICANT:  Hawkins, Phillip R.
;     APPLICANT:  Hillman, Jennifer L.
;     APPLICANT:  Lal, Preeti
;     APPLICANT:  Goli, Surya K.
;     TITLE OF INVENTION:  NOVEL HUMAN SERINE
;     TITLE OF INVENTION:  CARBOXYPEPTIDASE
;     NUMBER OF SEQUENCES:  8
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;       STREET:  3174 Porter Drive
;       CITY:  Palo Alto
;       STATE:  CA
;       COUNTRY:  USA
;       ZIP:  94304
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Diskette
;       COMPUTER:  IBM Compatible
;       OPERATING SYSTEM:  DOS
;       SOFTWARE:  FastSEQ for Windows Version 2.0
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/09/299,689A
;       FILING DATE:
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/828,488
;       FILING DATE:
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Billings, Lucy J.
;       REGISTRATION NUMBER:  36,749
;       REFERENCE/DOCKET NUMBER:  PF-0241 US
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  415-855-0555
;       TELEFAX:  415-845-4166
;   INFORMATION FOR SEQ ID NO:  1:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  477 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     IMMEDIATE SOURCE:
;       LIBRARY:  MPHGNOT03
;       CLONE:  443004
US-09-299-689A-1

  Query Match             98.4%;  Score 2512.5;  DB 4;  Length 477;
  Best Local Similarity   98.5%;  Pred. No. 9e-256;
  Matches  470;  Conservative    0;  Mismatches    6;  Indels    1;  Gaps    1;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||| |||||||||||||||||||||||||||||||| |||||| ||
Db         61 SLVGPFPGLNMKSYADFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGEPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAE-KKVW 419
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKKVW 420

Qy        420 KIFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||| |||||||||||||||||| ||||||||||||||||||||||||||||
Db        421 KIFKSDSGVAGYIRQVGDFHQVIIRGGGHTLPYDQPLRAFDMINRFIYGKGWDPYVG 477
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RESULT 5
US-08-828-488-5
; Sequence 5, Application US/08828488
; Patent No. 5925521
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/828,488
;      FILING DATE:  Filed Herewith
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  351 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  COLNCRT01
;      CLONE:  770469
US-08-828-488-5

  Query Match             69.4%;  Score 1772.5;  DB 2;  Length 351;
  Best Local Similarity   72.7%;  Pred. No. 5e-178;
  Matches  346;  Conservative    2;  Mismatches    3;  Indels  125;  Gaps    2;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
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Db          1 MVGAMWKVIVSLVLLMPGPCGGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKI------ 54

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120

Db         55 ------------------------------------------------------------ 54

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
                                     :| | |:
Db         55 ---------------------YTGTNSV------------------------------- 61

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         62 ------FQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 115

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
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Db        116 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 175

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
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Db        176 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 235

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        236 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 295

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        296 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 351


RESULT 6
US-09-299-689A-5
; Sequence 5, Application US/09299689A
; Patent No. 6379913
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/299,689A
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/828,488
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  351 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  COLNCRT01
;      CLONE:  770469
US-09-299-689A-5

  Query Match             69.4%;  Score 1772.5;  DB 4;  Length 351;
  Best Local Similarity   72.7%;  Pred. No. 5e-178;
  Matches  346;  Conservative    2;  Mismatches    3;  Indels  125;  Gaps    2;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              |||||||||||||||||| |||||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCGGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKI------ 54

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
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Db         55 ------------------------------------------------------------ 54

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
                                      :| | |:
Db         55 ---------------------YTGTNSV------------------------------- 61

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         62 ------FQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 115

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        116 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 175

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        176 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 235

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        236 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 295

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        296 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 351


RESULT 7
US-08-828-488-7
; Sequence 7, Application US/08828488
; Patent No. 5925521
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/828,488
;      FILING DATE:  Filed Herewith
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  7:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  471 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  GenBank
;      CLONE:  1718107
US-08-828-488-7

  Query Match             39.7%;  Score 1014;  DB 2;  Length 471;
  Best Local Similarity   43.9%;  Pred. No. 6.4e-98;
  Matches  197;  Conservative   95;  Mismatches  145;  Indels   12;  Gaps    7;

Qy         24 FHSLYRSVSMPPK-GDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYAGFLTVNK 82
              :  | |  : ||: |:||:|||||| :: |||:: |  : |      :::||:||:||:
Db         26 YKKLMRGSASPPRPGESGEPLFLTPLLQDGKIEEARNKARVNHPMLSSVESYSGFMTVDA 85

Qy         83 TYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPW 142
               :|||||||: ||:   | ||:::|||||| ||: |:| |:||: :  | ::: |:: |
Db         86 KHNSNLFFWYVPAKNNREQAPILVWLQGGPGASSLFGMFEENGPFHIHRNKSVKQREYSW 145

Qy        143 TTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTG 202
                 |:|||||||||||||   ||: ||: |  :|   : ||| :||    : ||::|
Db        146 HQNHHMIYIDNPVGTGFSFTDSDEGYSTNEEHVGENLMKFIQQFFVLFPNLLKHPFYISG 205

Qy        203 ESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEK 262
              ||| ||:|||  : ||  |   : |||| |:||||||:|| : :  | |:||::||:|
Db        206 ESYGGKFVPAFGYAIH--NSQSQPKINLQGLAIGDGYTDPLNQL-NYGEYLYELGLIDLN 262

Qy        263 QKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTE 322
              :| | :     |    :::   |  ::  | || |    |||: ||| |:||||::  |
Db        263 GRKKFDEDTAAAIACAERKDMNSANRLIQGLFDG-LDGQESYFKKVTGFSSYYNFIKGDE 321

Qy        323 PEDQ-LYYVKFLSLPEVRQAIHVGNQTFNDG---TIVEKYLREDTVQSVKPWLTEIMNNY 378
                |    ::||| ||||: ||||   |:|      | : | |||: :| ||:::::::|
Db        322 ESKQDSVLMEFLSNPEVRKGIHVGELPFHDSDGHNKVAEMLSEDTLDTVAPWVSKLLSHY 381

Qy        379 KVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDF 438
              :|| |||||||| |  :|   || | : |  |||:| ::::::   | |:||| :: |
Db        382 RVLFYNGQLDIICAYPMTVDFLMKMPFDGDSEYKRANREIYRV---DGEIAGYKKRAGRL 438

Qy        439 HQVIIRGGGHILPYDQPLRAFDMINRFIY 467
              :|:||  ||::| |||  ||||| | :
Db        439 QEVLIRNAGHMVPRDQPKWAFDMITSFTH 467


RESULT 8
US-09-299-689A-7
; Sequence 7, Application US/09299689A
; Patent No. 6379913
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/299,689A
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/828,488
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
```

```
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  7:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  471 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  GenBank
;      CLONE:  1718107
US-09-299-689A-7

  Query Match             39.7%;  Score 1014;  DB 4;  Length 471;
  Best Local Similarity   43.9%;  Pred. No. 6.4e-98;
  Matches  197;  Conservative   95;  Mismatches  145;  Indels   12;  Gaps    7;

Qy         24 FHSLYRSVSMPPK-GDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYAGFLTVNK 82
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Db         26 YKKLMRGSASPPRPGESGEPLFLTPLLQDGKIEEARNKARVNHPMLSSVESYSGFMTVDA 85

Qy         83 TYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPW 142
              :|||||||: ||:   | ||:::|||||| ||: |:| |:||: :  | ::: |:: |
Db         86 KHNSNLFFWYVPAKNNREQAPILVWLQGGPGASSLFGMFEENGPFHIHRNKSVKQREYSW 145

Qy        143 TTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTG 202
                 |:|||||||||||||   ||: ||: |  :|   : ||| :||    : ||::|
Db        146 HQNHHMIYIDNPVGTGFSFTDSDEGYSTNEEHVGENLMKFIQQFFVLFPNLLKHPFYISG 205

Qy        203 ESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEK 262
              ||| ||:|||  : ||  |   : |||| |:||||||:|| : :  | |:||::||:|
Db        206 ESYGGKFVPAFGYAIH--NSQSQPKINLQGLAIGDGYTDPLNQL-NYGEYLYELGLIDLN 262

Qy        263 QKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTE 322
              :| | :     |    :::   |  ::  | || |    |||: ||| |:||||::  |
Db        263 GRKKFDEDTAAAIACAERKDMNSANRLIQGLFDG-LDGQESYFKKVTGFSSYYNFIKGDE 321

Qy        323 PEDQ-LYYVKFLSLPEVRQAIHVGNQTFNDG---TIVEKYLREDTVQSVKPWLTEIMNNY 378
                 |    ::||| |||| |||   |:|      | : | |||: :| ||:::::::|
Db        322 ESKQDSVLMEFLSNPEVRKGIHVGELPFHDSDGHNKVAEMLSEDTLDTVAPWVSKLLSHY 381

Qy        379 KVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDF 438
              :|| |||||||| |  :|   || | : |  |||:| :::::   | |:||| :: |
Db        382 RVLFYNGQLDIICAYPMTVDFLMKMPFDGDSEYKRANREIYRV---DGEIAGYKKRAGRL 438

Qy        439 HQVIIRGGGHILPYDQPLRAFDMINRFIY 467
              :|:||  ||::| |||  |||||  | :
Db        439 QEVLIRNAGHMVPRDQPKWAFDMITSFTH 467


RESULT 9
US-08-828-488-8
; Sequence 8, Application US/08828488
; Patent No. 5925521
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/828,488
;      FILING DATE:  Filed Herewith
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  480 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  GenBank
;      CLONE:  190283
US-08-828-488-8

  Query Match             21.8%;  Score 557;  DB 2;  Length 480;
  Best Local Similarity   28.0%;  Pred. No. 9.2e-50;
  Matches  148;  Conservative   91;  Mismatches  162;  Indels  128;  Gaps   20;

Qy         12 LVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGL-- 69
              ::   | |   |   |   ||   :|::         :  :||:          |||
Db          1 MIRAAPPPLFLLLLLLLLVSWASRGEAAP--------DQDEIQR---------LPGLAK 43

Qy         70 --NMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPY 127
                : : |:|:|    : : :| :||  :|  ||::|||||| |||| ||: ||  ||||:
Db         44 QPSFRQYSGYL--KSSGSKHLHYWFVESQKDPENSPVVLWLNGGPGCSSLDGLLTEHGPF 101

Qy        128 VV-TSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQF 186
              :|    :||    : |    ::||:::| | |||::||   || |: :||:  : ||  |
Db        102 LVQPDGVTLEYNPYSWNLIANVLYLESPAGVGFSYSDDKF-YATNDTEVAQSNFEALQDF 160

Qy        187 FQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESII 246
              |::|||||||  ::|||||||| |:| :| |:     :::  :|| |:|:|:| |  |
Db        161 FRLFPEYKNNKLFLTGESYAGIYIPTLAVLV-----MQDPSMNLQGLAVGNGLSSYEQND 215

Qy        247 GGYAEFLYQIGLLDEKQKKYFQKQC------------HECI------------------ 275
                | |  |||  :    |  |                ||:
Db        216 NSLVYFAYYHGLLGNRLWSSLQTHCCSQNKCNFYDNKDLECVTNLQEVARIVGNSGLNIY 275

Qy        276 -----------EHIR--------------------KQNWFEAFEILDKLLDGD-LTSDPS 303
                        | |                    |: | :|       |  || :  ||
Db        276 NLYAPCAGGVPSHFRYEKDTVVVQDLGNIFTRLPLKRMWHQAL-----LRSGDKVRMDPP 330

Qy        304 YFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDT 363
                | |  | | |              |  | |::||      :  |   |       :| |
Db        331 -CTNTTAASTYLN---------NPYVRKALNIPEQLPQWDMCNFLVN-----LQYRR--L 373

Qy        364 VQSVKPWLTEIMNN--YKVLIYNGQLDIIVAAALTERSLMGMDW--KGSQEYKKAEKKVW 419
              :|:     ::::  |:|:|||| :|:          : || :|       :  : ::: |
Db        374 YRSMNSQYLKLLSSQKYQILLYNGDVDMAC-------NFMGDEWFVDSLNQKMEVQRRPW 426

Qy        420 KIFKSDS--EVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFI 466
              :   ||  ::||::::      : |:| ||::| |:|| || | :||:
Db        427 LVKYGDSGEQIAGFVKEFSHIAFLTIKGAGHMVPTDKPLAAFTMFSRFL 475


RESULT 10
US-09-299-689A-8
```

```
; Sequence 8, Application US/09299689A
; Patent No. 6379913
;  GENERAL INFORMATION:
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Hillman, Jennifer L.
;    APPLICANT:  Lal, Preeti
;    APPLICANT:  Goli, Surya K.
;    TITLE OF INVENTION:  NOVEL HUMAN SERINE
;    TITLE OF INVENTION:  CARBOXYPEPTIDASE
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/299,689A
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/828,488
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Billings, Lucy J.
;      REGISTRATION NUMBER:  36,749
;      REFERENCE/DOCKET NUMBER:  PF-0241 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-845-4166
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  480 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    IMMEDIATE SOURCE:
;      LIBRARY:  GenBank
;      CLONE:  190283
US-09-299-689A-8

  Query Match             21.8%;  Score 557;  DB 4;  Length 480;
  Best Local Similarity   28.0%;  Pred. No. 9.2e-50;
  Matches  148;  Conservative   91;  Mismatches  162;  Indels  128;  Gaps   20;

Qy         12 LVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGL-- 69
              ::   | |   |   |   ||   :|::         :  :||:          |||
Db          1 MIRAAPPPLFLLLLLLLLLVSWASRGEAAP--------DQDEIQR---------LPGLAK 43

Qy         70 --NMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPY 127
                 : : |:|:|    : : :| :||  :|  ||::|||||| |||| ||: ||  ||||:
Db         44 QPSFRQYSGYL--KSSGSKHLHYWFVESQKDPENSPVVLWLNGGPGCSSLDGLLTEHGPF 101

Qy        128 VV-TSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQF 186
             :|    :||    : |    ::||:::| | |||::||   || |: :||:  : ||  |
Db        102 LVQPDGVTLEYNPYSWNLIANVLYLESPAGVGFSYSDDKF-YATNDTEVAQSNFEALQDF 160

Qy        187 FQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESII 246
             |::|||||||  ::|||||||  |:| :| |:     :::  :|| |:|:|:| |  |
Db        161 FRLFPEYKNNKLFLTGESYAGIYIPTLAVLV-----MQDPSMNLQGLAVGNGLSSYEQND 215

Qy        247 GGYAEFLYQIGLLDEKQKKYFQKQC------------HECI----------------- 275
                | |  |||  :    |  |               ||:
Db        216 NSLVYFAYYHGLLGNRLWSSLQTHCCSQNKCNFYDNKDLECVTNLQEVARIVGNSGLNIY 275

Qy        276 -----------EHIR-------------------KQNWFEAFEILDKLLDGD-LTSDPS 303
                        | |                   |: | :|      |  || :  ||

Db        276 NLYAPCAGGVPSHFRYEKDTVVVQDLGNIFTRLPLKRMWHQAL-----LRSGDKVRMDPP 330

Qy        304 YFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDT 363
                | |  | | |           |  | |::||      : |   |      :| |
Db        331 -CTNTTAASTYLN---------NPYVRKALNIPEQLPQWDMCNFLVN-----LQYRR--L 373

Qy        364 VQSVKPWLTEIMNN--YKVLIYNGQLDIIVAAALTERSLMGMDW--KGSQEYKKAEKKVW 419
               :|:     :::::  |:|:||| :|:         : || :|      :  : ::: |
Db        374 YRSMNSQYLKLLSSQKYQILLYNGDVDMAC-------NFMGDEWFVDSLNQKMEVQRRPW 426

Qy        420 KIFKSDS--EVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFI 466
               :   ||  ::||::::      : |:| ||::| |:|| || | :||:
Db        427 LVKYGDSGEQIAGFVKEFSHIAFLTIKGAGHMVPTDKPLAAFTMFSRFL 475


RESULT 11
US-09-702-705-336
; Sequence 336, Application US/09702705
; Patent No. 6504010
; GENERAL INFORMATION:
;  APPLICANT:  Wang, Tongtong
;  APPLICANT:  Bangur, Chaitanya S.
;  APPLICANT:  Lodes, Michael A.
;  APPLICANT:  Fanger, Gary
;  APPLICANT:  Vedvick, Tom
;  APPLICANT:  Carter, Darrick
;  APPLICANT:  Retter, Marc
;  APPLICANT:  Mannion, Jane
;  APPLICANT:  Fan, Liqun
;  TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE THERAPY AND
;  TITLE OF INVENTION:  DIAGNOSIS OF LUNG CANCER
;  FILE REFERENCE:  210121.478C14
;  CURRENT APPLICATION NUMBER: US/09/702,705
;  CURRENT FILING DATE:  2000-10-30
;  NUMBER OF SEQ ID NOS:  1833
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 336
;   LENGTH: 480
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-702-705-336

  Query Match             21.8%;  Score 557;  DB 4;  Length 480;
  Best Local Similarity   28.0%;  Pred. No. 9.2e-50;
  Matches  148;  Conservative   91;  Mismatches  162;  Indels  128;  Gaps   20;

Qy         12 LVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGL-- 69
              ::   | |   |   |   ||   :|::         :  :||:          |||
Db          1 MIRAAPPPLFLLLLLLLLLVSWASRGEAAP--------DQDEIQR---------LPGLAK 43

Qy         70 --NMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPY 127
                 : : |:|:|    : : :| :||  :|  ||::|||||| |||| ||: ||  ||||:
Db         44 QPSFRQYSGYL--KSSGSKHLHYWFVESQKDPENSPVVLWLNGGPGCSSLDGLLTEHGPF 101

Qy        128 VV-TSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQF 186
             :|    :||    : |    ::||:::| | |||::||   || |: :||:  : ||  |
Db        102 LVQPDGVTLEYNPYSWNLIANVLYLESPAGVGFSYSDDKF-YATNDTEVAQSNFEALQDF 160

Qy        187 FQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESII 246
             |::|||||||  ::|||||||  |:| :| |:     :::  :|| |:|:|:| |  |
Db        161 FRLFPEYKNNKLFLTGESYAGIYIPTLAVLV-----MQDPSMNLQGLAVGNGLSSYEQND 215

Qy        247 GGYAEFLYQIGLLDEKQKKYFQKQC------------HECI----------------- 275
                | |  |||  :    |  |               ||:
Db        216 NSLVYFAYYHGLLGNRLWSSLQTHCCSQNKCNFYDNKDLECVTNLQEVARIVGNSGLNIY 275

Qy        276 -----------EHIR-------------------KQNWFEAFEILDKLLDGD-LTSDPS 303
                        | |                   |: | :|      |  || :  ||

Db        276 NLYAPCAGGVPSHFRYEKDTVVVQDLGNIFTRLPLKRMWHQAL-----LRSGDKVRMDPP 330

Qy        304 YFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDT 363
                | |  | | |           |  | |::||      : |   |      :| |
Db        331 -CTNTTAASTYLN---------NPYVRKALNIPEQLPQWDMCNFLVN-----LQYRR--L 373
```

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Qy        364 VQSVKPWLTEIMNN--YKVLIYNGQLDIIVAAALTERSLMGMDW--KGSQEYKKAEKKVW 419
              :|:     :::::  |::|:||| :|:         : || :|      :  : ::: |
Db        374 YRSMNSQYLKLLSSQKYQILLYNGDVDMAC-------NFMGDEWFVDSLNQKMEVQRRPW 426

Qy        420 KIFKSDS--EVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFI 466
              :  . ||  ::||::::      : |:| ||::| |:|| || | :||:
Db        427 LVKYGDSGEQIAGFVKEFSHIAFLTIKGAGHMVPTDKPLAAFTMFSRFL 475


RESULT 12
US-09-736-457-336
; Sequence 336, Application US/09736457
; Patent No. 6509448
; GENERAL INFORMATION:
;  APPLICANT:  Wang, Tongtong
;  APPLICANT:  Bangur, Chaitanya S.
;  APPLICANT:  Lodes, Michael A.
;  APPLICANT:  Fanger, Gary
;  APPLICANT:  Vedvick, Tom
;  APPLICANT:  Carter, Darrick
;  APPLICANT:  Retter, Marc
;  APPLICANT:  Mannion, Jane
;  APPLICANT:  Fan, Liqun
;  APPLICANT:  Wang, Aijun
;  TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE THERAPY AND
;  TITLE OF INVENTION:  DIAGNOSIS OF LUNG CANCER
;  FILE REFERENCE:  210121.478C15
;  CURRENT APPLICATION NUMBER: US/09/736,457
;  CURRENT FILING DATE:  2000-12-13
;  NUMBER OF SEQ ID NOS:  1864
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 336
;   LENGTH: 480
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-736-457-336

  Query Match           21.8%;  Score 557;  DB 4;  Length 480;
  Best Local Similarity   28.0%;  Pred. No. 9.2e-50;
  Matches  148;  Conservative   91;  Mismatches  162;  Indels  128;  Gaps   20;

Qy         12 LVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGL-- 69
              ::  | |   |   |   ||   :|::          :  :||:           |||
Db          1 MIRAAPPPLFLLLLLLLLLVSWASRGEAAP--------DQDEIQR---------LPGLAK 43

Qy         70 --NMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPY 127
                : : |:|:|    : : :| :||  :|  ||::|||||| |||| ||: ||  ||||:
Db         44 QPSFRQYSGYL--KSSGSKHLHYWFVESQKDPENSPVVLWLNGGPGCSSLDGLLTEHGPF 101

Qy        128 VV-TSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQF 186
              :|    :||    : |    ::||:::| | |||::||   || |: :||:  : ||  |
Db        102 LVQPDGVTLEYNPYSWNLIANVLYLESPAGVGFSYSDDKF-YATNDTEVAQSNFEALQDF 160

Qy        187 FQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESII 246
              |::|||||||  ::|||||| |:| :| |:     :::  :|| |:|:|:| |  |
Db        161 FRLFPEYKNNKLFLTGESYAGIYIPTLAVLV-----MQDPSMNLQGLAVGNGLSSYEQND 215

Qy        247 GGYAEFLYQIGLLDEKQKKYFQKQC-------------HECI----------------- 275
                | |  |||  :    |  |                ||:
Db        216 NSLVYFAYYHGLLGNRLWSSLQTHCCSQNKCNFYDNKDLECVTNLQEVARIVGNSGLNIY 275

Qy        276 -----------EHIR-------------------KQNWFEAFEILDKLLDGD-LTSDPS 303
                        | |                  |: | :|       |  || :  ||
Db        276 NLYAPCAGGVPSHFRYEKDTVVVQDLGNIFTRLPLKRMWHQAL-----LRSGDKVRMDPP 330

Qy        304 YFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDT 363
              | |  | | |              |  | |::||      : |    |      :| |
Db        331 -CTNTTAASTYLN---------NPYVRKALNIPEQLPQWDMCNFLVN-----LQYRR--L 373

Qy        364 VQSVKPWLTEIMNN--YKVLIYNGQLDIIVAAALTERSLMGMDW--KGSQEYKKAEKKVW 419
              :|:     :::::  |::|:||| :|:         : || :|      :  : ::: |
Db        374 YRSMNSQYLKLLSSQKYQILLYNGDVDMAC-------NFMGDEWFVDSLNQKMEVQRRPW 426

Qy        420 KIFKSDS--EVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFI 466
              :  . ||  ::||::::      : |:| ||::| |:|| || | :||:
Db        427 LVKYGDSGEQIAGFVKEFSHIAFLTIKGAGHMVPTDKPLAAFTMFSRFL 475


RESULT 13
US-09-640-305-4
; Sequence 4, Application US/09640305
; Patent No. RE37447
;  GENERAL INFORMATION:
;       APPLICANT: Fleer, Reinhard
;                  Fournier, Alain
;                  Yeh, Patrice
;       TITLE OF INVENTION: MODIFIED KLUYVEROMYCES YEASTS, THEIR
;                           PREPARATION AND USE
;       NUMBER OF SEQUENCES: 17
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Rhone-Poulenc Rorer Inc.
;            STREET: 500 Arcola Rd. 3C43
;            CITY: Collegeville
;            STATE: PA
;            COUNTRY: USA
;            ZIP: 19002
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/640,305
;            FILING DATE: 16-Aug-2000
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/08/360,673
;            FILING DATE: 06-FEB-1995
;            APPLICATION NUMBER: WO PCT/FR93/00623
;            FILING DATE: 23-JUN-1993
;            APPLICATION NUMBER: FR 92/07785
;            FILING DATE: 25-JUN-1992
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Smith, Julie K.
;            REGISTRATION NUMBER: 38,619
;            REFERENCE/DOCKET NUMBER: ST92040-US
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (610)454-3839
;            TELEFAX: (610)454-3808
;  INFORMATION FOR SEQ ID NO: 4:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 491 amino acids
;            TYPE: amino acid
;            TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-640-305-4

  Query Match           19.5%;  Score 498.5;  DB 1;  Length 491;
  Best Local Similarity   29.2%;  Pred. No. 1.4e-43;
  Matches  128;  Conservative   81;  Mismatches  151;  Indels   79;  Gaps   16;

Qy         71 MKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVT 130
              :| ::|:|      : : |:||| ::  ||: ||:||| |||| ||  ||| | ||  :
Db         80 VKQWSGYLDYQD--SKHFFYWFFESRNDPENDPVILWLNGGPGCSSFVGLFFELGPSSIG 137

Qy        131 SNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIF 190
              :::      : | :  |::::| ||| |||: |           || |:|:|  |  ||: |
Db        138 ADLKPIYNPYSWNSNASVIFLDQPVGVGFSYGDSK---VSTTDDAAKDVYIFLDLFFERF 194

Qy        191 PEYKNNDFYVTGESYAGKYVPAIAH---LIHSLNPVREVKINLNGIAIGDGYSDP----- 242
              |  :||||:::|||||| |:| |||    ::|:     :    ||: : ||:|::||
Db        195 PHLRNNDFHISGESYAGHYLPKIAHEIAVVHA----EDSSFNLSSVLIGNGFTDPLTQYQ 250

Qy        243 --ESII---GGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGD 297
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:44:45 ; Search time 36 Seconds
(without alignments)
2270.907 Million cell updates/sec

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Perfect score: 2554
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Gapop 10.0 , Gapext 0.5

Searched: 644079 seqs, 171749292 residues

Total number of hits satisfying chosen parameters: 644079

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2550	99.8	476	14	US-10-084-018-3	Sequence 3, Appli
2	2539	99.4	476	9	US-09-729-674-110	Sequence 110, App
3	2538	99.4	476	10	US-09-909-320-164	Sequence 164, App
4	2538	99.4	476	10	US-09-909-088B-164	Sequence 164, App
5	2538	99.4	476	10	US-09-905-291A-164	Sequence 164, App
6	2538	99.4	476	10	US-09-902-853-164	Sequence 164, App
7	2538	99.4	476	10	US-09-907-824-164	Sequence 164, App
8	2538	99.4	476	10	US-09-907-841-164	Sequence 164, App
9	2538	99.4	476	11	US-09-904-011-164	Sequence 164, App
10	2538	99.4	476	11	US-09-906-742-164	Sequence 164, App
11	2538	99.4	476	11	US-09-906-838-164	Sequence 164, App
12	2538	99.4	476	11	US-09-907-613-164	Sequence 164, App
13	2538	99.4	476	11	US-09-907-942-164	Sequence 164, App
14	2538	99.4	476	11	US-09-796-753-40	Sequence 40, Appl
15	2538	99.4	476	11	US-09-904-859-164	Sequence 164, App
16	2538	99.4	476	11	US-09-909-204-164	Sequence 164, App
17	2538	99.4	476	11	US-09-904-820-164	Sequence 164, App
18	2538	99.4	476	11	US-09-904-786-164	Sequence 164, App
19	2538	99.4	476	11	US-09-906-646-164	Sequence 164, App
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21	2538	99.4	476	11	US-09-903-786-164	Sequence 164, App
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23	2538	99.4	476	11	US-09-903-749A-164	Sequence 164, App
24	2538	99.4	476	11	US-09-904-119-164	Sequence 164, App
25	2538	99.4	476	11	US-09-904-956-164	Sequence 164, App
26	2538	99.4	476	11	US-09-902-736-164	Sequence 164, App
27	2538	99.4	476	11	US-09-907-794-164	Sequence 164, App
28	2538	99.4	476	11	US-09-903-943-164	Sequence 164, App
29	2538	99.4	476	11	US-09-904-462-164	Sequence 164, App
30	2538	99.4	476	11	US-09-907-925-164	Sequence 164, App
31	2538	99.4	476	11	US-09-902-692-164	Sequence 164, App
32	2538	99.4	476	11	US-09-903-520-164	Sequence 164, App
33	2538	99.4	476	11	US-09-905-056-164	Sequence 164, App
34	2538	99.4	476	11	US-09-909-064-164	Sequence 164, App
35	2538	99.4	476	11	US-09-904-553-164	Sequence 164, App
36	2538	99.4	476	11	US-09-905-381-164	Sequence 164, App
37	2538	99.4	476	11	US-09-905-088-164	Sequence 164, App
38	2538	99.4	476	11	US-09-907-575-164	Sequence 164, App
39	2538	99.4	476	11	US-09-905-075-164	Sequence 164, App
40	2538	99.4	476	11	US-09-902-759-164	Sequence 164, App
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43	2538	99.4	476	11	US-09-907-979-164	Sequence 164, App
44	2538	99.4	476	11	US-09-902-615-164	Sequence 164, App
45	2538	99.4	476	11	US-09-903-925-164	Sequence 164, App

ALIGNMENTS

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RESULT 1
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; Sequence 3, Application US/10084018
; Publication No. US20020160499A1
;   GENERAL INFORMATION:
;       APPLICANT: Bandman, Olga
;                  Hawkins, Phillip R.
;                  Hillman, Jennifer L.
;                  Lal, Preeti
;                  Goli, Surya K.
;       TITLE OF INVENTION: NOVEL HUMAN SERINE
;                           CARBOXYPEPTIDASE
;       NUMBER OF SEQUENCES: 8
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Incyte Pharmaceuticals, Inc.
;            STREET: 3174 Porter Drive
;            CITY: Palo Alto
;            STATE: CA
;            COUNTRY: USA
;            ZIP: 94304
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Diskette
;            COMPUTER: IBM Compatible
;            OPERATING SYSTEM: DOS
;            SOFTWARE: FastSEQ for Windows Version 2.0
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/084,018
;            FILING DATE: 25-Feb-2002
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/09/299,689A
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: 08/828,488
;            FILING DATE: <Unknown>
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Billings, Lucy J.
;            REGISTRATION NUMBER: 36,749
;            REFERENCE/DOCKET NUMBER: PF-0241 US
;       TELECOMMUNICATION INFORMATION:
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;             TELEPHONE: 415-855-0555
;             TELEFAX: 415-845-4166
;   INFORMATION FOR SEQ ID NO: 3:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 476 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: MMLR3DT01
;             CLONE: 566993
;        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-084-018-3

  Query Match             99.8%;  Score 2550;  DB 14;  Length 476;
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RESULT 2
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; Sequence 110, Application US/09729674
; Patent No. US20010039335A1
; GENERAL INFORMATION:
;  APPLICANT: Jacobs, Kenneth
;  APPLICANT:  McCoy, John M.
;  APPLICANT:  LaVallie, Edward R.
;  APPLICANT:  Collins-Racie, Lisa A.
;  APPLICANT:  Evans, Cheryl
;  APPLICANT:  Merberg, David
;  APPLICANT:  Treacy, Maurice
;  APPLICANT:  Agostino, Michael J.
;  APPLICANT:  Steininger II, Robert J.
;  APPLICANT:  Spaulding, Vikki
;  APPLICANT:  Wong, Gordon G.
;  APPLICANT:  Clark, Hilary
;  APPLICANT:  Fechtel, Kim
;  APPLICANT:  Genetics Institute, Inc.
;  TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
;  FILE REFERENCE: 6055-64X
;  CURRENT APPLICATION NUMBER: US/09/729,674
;  CURRENT FILING DATE:  2000-12-04
;  PRIOR APPLICATION NUMBER: 09/539,330
;  PRIOR FILING DATE: 2000-03-30
;  NUMBER OF SEQ ID NOS: 283
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 110
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-729-674-110

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  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

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RESULT 3
US-09-909-320-164
; Sequence 164, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
```

```
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,320
;  CURRENT FILING DATE:  2002-01-04
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-320-164

  Query Match             99.4%;  Score 2538;  DB 10;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
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Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
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Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
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Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
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Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
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Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 4
US-09-909-088B-164
; Sequence 164, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,088B
;  CURRENT FILING DATE:  2001-07-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
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;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-164

  Query Match             99.4%;  Score 2538;  DB 10;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 5
US-09-905-291A-164
; Sequence 164, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-164

  Query Match             99.4%;  Score 2538;  DB 10;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
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Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 6
US-09-902-853-164
; Sequence 164, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/902,853
;  CURRENT FILING DATE:  2001-07-10
;  PRIOR APPLICATION NUMBER: US/09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-164

  Query Match             99.4%;  Score 2538;  DB 10;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 7
US-09-907-824-164
; Sequence 164, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
```

; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,824
; CURRENT FILING DATE: 2001-07-17
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-907-824-164

Query Match 99.4%; Score 2538; DB 10; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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RESULT 8
US-09-907-841-164
; Sequence 164, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,841
; CURRENT FILING DATE: 2001-11-20
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222

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;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-841-164

  Query Match             99.4%;  Score 2538;  DB 10;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 9
US-09-904-011-164
; Sequence 164, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-011-164

  Query Match             99.4%;  Score 2538;  DB 11;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
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Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||||| |||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 10
US-09-906-742-164
; Sequence 164, Application US/09906742
; Publication No. US20030023054A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/906,742
;  CURRENT FILING DATE:  2001-07-16
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-906-742-164

  Query Match             99.4%;  Score 2538;  DB 11;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              |||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||||| |||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| |||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 11
US-09-906-838-164
; Sequence 164, Application US/09906838
; Publication No. US20030027143A1
```

; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,838
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-838-164

Query Match 99.4%; Score 2538; DB 11; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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RESULT 12
US-09-907-613-164
; Sequence 164, Application US/09907613
; Publication No. US20030027145A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,613
; CURRENT FILING DATE: 2001-07-17

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;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-613-164

  Query Match             99.4%;  Score 2538;  DB 11;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 13
US-09-907-942-164
; Sequence 164, Application US/09907942
; Publication No. US20030027146A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,942
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
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;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-942-164

  Query Match             99.4%;  Score 2538;  DB 11;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              ||||||||||||||||||||||| |||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 14
US-09-796-753-40
; Sequence 40, Application US/09796753
; Publication No. US20030027998A1
; GENERAL INFORMATION:
;  APPLICANT:  McCarthy, Sean A.
;  TITLE OF INVENTION:  SECRETED PROTEINS AND USES THEREOF
;  FILE REFERENCE:  7853-227-999
;  CURRENT APPLICATION NUMBER: US/09/796,753
;  CURRENT FILING DATE:  2001-03-01
;  PRIOR APPLICATION NUMBER:  09/183,175
;  PRIOR FILING DATE:  1998-10-30
;  PRIOR APPLICATION NUMBER:  09/223,094
;  PRIOR FILING DATE:  1998-12-30
;  PRIOR APPLICATION NUMBER:  09/223,546
;  PRIOR FILING DATE:  1998-12-30
;  PRIOR APPLICATION NUMBER:  09/224,246
;  PRIOR FILING DATE:  1998-12-30
;  PRIOR APPLICATION NUMBER:  09/259,388
;  PRIOR FILING DATE:  1999-02-26
;  PRIOR APPLICATION NUMBER:  60/122,458
;  PRIOR FILING DATE:  1999-03-01
;  PRIOR APPLICATION NUMBER:  09/312,359
;  PRIOR FILING DATE:  1999-05-14
;  PRIOR APPLICATION NUMBER:  09/336,536
;  PRIOR FILING DATE:  1999-06-18
;  PRIOR APPLICATION NUMBER:  09/342,687
;  PRIOR FILING DATE:  1999-06-29
;  PRIOR APPLICATION NUMBER:  09/345,464
;  PRIOR FILING DATE:  1999-06-30
;  PRIOR APPLICATION NUMBER:  09/365,164
;  PRIOR FILING DATE:  1999-07-30
;  PRIOR APPLICATION NUMBER:  09/399,723
;  PRIOR FILING DATE:  1999-09-20
;  PRIOR APPLICATION NUMBER:  09/409,634
;  PRIOR FILING DATE:  1999-09-30
;  PRIOR APPLICATION NUMBER:  09/471,179
;  PRIOR FILING DATE:  1999-12-23
;  PRIOR APPLICATION NUMBER:  09/474,071
;  PRIOR FILING DATE:  1999-12-29
;  PRIOR APPLICATION NUMBER:  09/474,072
;  PRIOR FILING DATE:  1999-12-29
;  PRIOR APPLICATION NUMBER:  09/514,010
;  PRIOR FILING DATE:  2000-02-25
;  PRIOR APPLICATION NUMBER:  09/516,745
;  PRIOR FILING DATE:  2000-03-01
;  PRIOR APPLICATION NUMBER:  09/572,002
;  PRIOR FILING DATE:  2000-05-14
;  PRIOR APPLICATION NUMBER:  09/597,993
;  PRIOR FILING DATE:  2000-06-19
;  PRIOR APPLICATION NUMBER:  09/599,596
;  PRIOR FILING DATE:  2000-06-22
;  PRIOR APPLICATION NUMBER:  09/630,334
;  PRIOR FILING DATE:  2000-07-31
;  PRIOR APPLICATION NUMBER:  09/606,565
;  PRIOR FILING DATE:  2000-06-29
;  PRIOR APPLICATION NUMBER:  09/606,317
;  PRIOR FILING DATE:  2000-06-29
;  PRIOR APPLICATION NUMBER:  09/665,666
;  PRIOR FILING DATE:  2000-09-20
;  PRIOR APPLICATION NUMBER:  09/677,751
;  PRIOR FILING DATE:  2000-09-30
;  NUMBER OF SEQ ID NOS:  162
; SEQ ID NO 40
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-796-753-40

  Query Match             99.4%;  Score 2538;  DB 11;  Length 476;
  Best Local Similarity   99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
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Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
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Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
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Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
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Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
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Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476

RESULT 15
US-09-904-859-164
; Sequence 164, Application US/09904859
; Publication No. US20030036060A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,859
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
;   LENGTH: 476
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-859-164

  Query Match            99.4%;  Score 2538;  DB 11;  Length 476;
  Best Local Similarity  99.2%;  Pred. No. 2.8e-237;
  Matches  472;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


Search completed: November  7, 2003, 16:50:23
Job time : 44 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:41:14 ; Search time 21 Seconds
(without alignments)
2179.823 Million cell updates/sec

Title: US-10-084-018-3
Perfect score: 2554
Sequence: 1 MVGAMWKVIVSLVLLMPGPC.....RAFDMINRFIYGKGWDPYVG 476

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	894.5	35.0	441	2	A41612	vitellogenic carbo
2	623.5	24.4	444	2	D86283	T15D22.4 protein -
3	585.5	22.9	500	1	S22530	carboxypeptidase C
4	571.5	22.4	510	2	T48977	carboxypeptidase-l
5	567.5	22.2	411	1	A35275	carboxypeptidase C
6	557	21.8	480	2	A31589	carboxypeptidase C
7	556	21.8	429	1	T03607	probable carboxype
8	555.5	21.8	499	1	A29412	carboxypeptidase C
9	536	21.0	474	2	A35732	protective protein
10	503	19.7	2105	2	T18968	probable serine-ty
11	491	19.2	454	2	T20829	probable serine ca
12	484	19.0	482	2	T49079	serine-type carbox
13	483.5	18.9	542	1	JC1380	carboxypeptidase C
14	481.5	18.9	516	2	S44191	carboxypeptidase D
15	479.5	18.8	469	2	T16316	probable serine ca
16	471	18.4	508	1	S46008	probable carboxype
17	466.5	18.3	456	2	A85139	hypothetical prote
18	466.5	18.3	501	2	T49081	serine-type carbox
19	465.5	18.2	552	2	JC7666	serine-type carbox
20	463.5	18.1	2338	2	T25810	hypothetical prote
21	460	18.0	502	2	T49188	serin carboxypepti
22	455	17.8	1002	2	T43236	carboxypeptidase C
23	454	17.8	479	2	G96501	probable serine ca
24	451	17.7	465	2	G86244	Serine carboxypept
25	447.5	17.5	499	1	CPBHS	carboxypeptidase C
26	446	17.5	482	2	A43828	probable serine ca
27	442.5	17.3	523	1	S61713	carboxypeptidase C
28	434.5	17.0	456	2	H86406	probable serine ca
29	432.5	16.9	510	1	S43516	carboxypeptidase C
30	432	16.9	425	2	E84631	probable serine ca
31	432	16.9	532	1	CPBYY	carboxypeptidase C
32	431.5	16.9	458	2	F84746	probable serine ca
33	429	16.8	452	2	H84772	probable serine ca
34	428.5	16.8	423	1	A29639	carboxypeptidase D
35	426	16.7	487	2	T49080	serine-type carbox
36	422.5	16.5	447	2	G84772	probable serine ca
37	422.5	16.5	487	2	B84472	probable serine ca
38	421	16.5	480	2	T50511	serine-type carbox
39	419.5	16.4	510	2	T39601	serine carboxypept
40	417.5	16.3	425	2	F85360	SERINE CARBOXYPEPT
41	417	16.3	468	2	D84503	probable serine ca
42	416	16.3	470	2	B96637	hypothetical prote
43	415	16.2	465	2	B85358	SERINE CARBOXYPEPT
44	410	16.1	512	2	T33463	probable serine ca
45	410	16.1	574	2	T16230	hypothetical prote

ALIGNMENTS

RESULT 1
A41612
vitellogenic carboxypeptidase (EC 3.4.16.-) precursor - yellow fever mosquito
C;Species: Aedes aegypti (yellow fever mosquito)
C;Date: 10-Jul-1992 #sequence_revision 10-Jul-1992 #text_change 17-Mar-2000
C;Accession: A41612
R;Cho, W.L.; Deitsch, K.W.; Raikhel, A.S.
Proc. Natl. Acad. Sci. U.S.A. 88, 10821-10824, 1991
A;Title: An extraovarian protein accumulated in mosquito oocytes is a carboxypeptidase
A;Reference number: A41612; MUID:92073379; PMID:1961751
A;Accession: A41612
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-441 <CHO>
A;Cross-references: GB:M79452; NID:g159555; PID:g473361
C;Superfamily: serine carboxypeptidase
C;Keywords: hydrolase; serine carboxypeptidase

Query Match 35.0%; Score 894.5; DB 2; Length 441;
Best Local Similarity 43.4%; Pred. No. 3.5e-59;
Matches 175; Conservative 87; Mismatches 132; Indels 9; Gaps 6;

```
Qy         24 FHSLYRSVSMPPK-GDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYAGFLTVNK 82
              :  | |  : | : |:||:|||||| :: |||:: |  : |      :::||:||:||:
Db         26 YKKLMRGSASPRRPGESGEPLFLTPLLQDGKIEEARNKARVNHPMLSSVESYSGFMTVDA 85

Qy         83 TYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPW 142
              :|||||||: ||:   | ||:::|||||| ||: |:| |:||: :  | ::: |:: |
Db         86 KHNSNLFFWYVPAKNNREQAPILVWLQGGPGASSLFGMFEENGPFHIHRNNSVKQREYSW 145

Qy        143 TTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTG 202
              |:|||||||||||||   ||: ||: |  :|   : ||| :||    : ||::|
Db        146 HQNHHMIYIDNPVGTGFSFTDSDEGYSTNEEHVGENLMKFIQQFFVLFPNLLKHPFYISG 205

Qy        203 ESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEK 262
              ||| ||:|||  : ||  |   : |||| |:||||||:|| : :  | |:||::||:|
Db        206 ESYGGKFVPAFGYAIH--NSQSQPKINLQGLAIGDGYTDPLNQL-NYGEYLYELGLIDLN 262

Qy        263 QKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTE 322
              :| | :    |   ::::  |  ::  | || |    |||: ||| |:||||::  |
Db        263 GRKKFDEDTAAAIACAERKDMKCANRLIQGLFDG-LDGQESYFKKVTGFSSYYNFIKGDE 321

Qy        323 PEDQ-LYYVKFLSLPEVRQAIHVGNQTFNDG---TIVEKYLREDTVQSVKPWLTEIMNNY 378
              |    ::||| ||||: ||||   |:|      | : | |||: :| ||:::::::|
Db        322 ESKQDSVLMEFLSNPEVRKGIHVGELPFHDSDGHNKVAEMLSEDTLDTVAPWVSKLLSHY 381

Qy        379 KVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKI 421
              :|| |||||||| |  :|   || | : |  |||:| ::::::
Db        382 RVLFYNGQLDIICAYPMTVDFLMKMPFDGDSEYKRANREIYRV 424
```

RESULT 2

D86283
T15D22.4 protein - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Nov-2001
C;Accession: D86283
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso,
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.;
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali,
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
A;Accession: D86283
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-444 <STO>
A;Cross-references: GB:AE005172; NID:g6899645; PIDN:AAF31022.1; GSPDB:GN00141
C;Genetics:
A;Map position: 1

Query Match 24.4%; Score 623.5; DB 2; Length 444;
Best Local Similarity 35.2%; Pred. No. 6.7e-39;
Matches 145; Conservative 74; Mismatches 172; Indels 21; Gaps 9;

```
Qy         66 FPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQP----EDAPVVLWLQGGPGGSSMXGLF 121
              ||    : : :|:| |      |::|: |: || :|      | |:::|||||| ||| | |
Db         28 FPDEALPTKSGYLPVKPAPGSSMFYAFYEAQ-EPTTPLPDTPLLVWLQGGPGCSSMIGNF 86

Qy        122 VEHGPYVVTSNMTLRDRD-FPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |.||: | |  |  :|:   |     :|::|||:| |||          |:  ||  ||
Db         87 YELGPWRVVSRATDLERNPGAWNRLFGLLFVDNPIGVGFSIAASQQDIPTNQRQVAEHLY 146

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              :||::| :  | ::|   | ||||||||||||| : |    |    |:|| |:|||:| :
Db        147 AALVEFLEQNPSFENRPVYFTGESYAGKYVPAIGYYILKEKP--NGKVNLKGLAIGNGLT 204

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              || : :  :|  :|  ||:: ||:   ||      :  :: | | || :   :||
Db        205 DPVTQVQTHAVNVYYSGLVNAKQRVELQKAQEISVALVKSQKWREAADARTELL------ 258

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQT-FND-GTIVEKY 358
                :   |:|| :  ||  |      |  |  |:  | :: : |     | :    ||
Db        259 --TLLSNMTGLATLYNTARAIPYRTDL-VVDLLNQREAKRVLGVSETVRFEECSDEVEDV 315

Qy        359 LREDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKV 418
              || | ::|||  :   :  :||:| | ||:      ||  :  |:| |   :  ||::|
Db        316 LRADVMKSVKFMVEYALERTQVLLYQGMLDLRDGVVSTEEWMKTMNWSGLGMFSTAERRV 375

Qy        419 WKIFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKG 470
              ||    |  ||||::: |:   | : | || :| |: : : |||  :: |||
Db        376 WK--DEDGVVAGYVQRWGNLCHVAVTGAGHFVPTDKAVNSRDMIEGWVLGKG 425
```

RESULT 3
S22530
carboxypeptidase C (EC 3.4.16.5) precursor - rice
N;Alternate names: carboxypeptidase III
C;Species: Oryza sativa (rice)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 24-Nov-1999
C;Accession: S22530
R;Washio, K.; Ishikawa, K.
Plant Mol. Biol. 19, 631-640, 1992
A;Title: Structure and expression during the germination of rice seeds of the gene for a
A;Reference number: S22530; MUID:92329723; PMID:1627776
A;Accession: S22530
A;Molecule type: DNA
A;Residues: 1-500 <WAS>
A;Cross-references: EMBL:S40458
C;Genetics:
A;Introns: 100/2; 156/3; 196/3; 244/3; 295/1; 324/3; 411/1; 455/3
C;Superfamily: serine carboxypeptidase
C;Keywords: glycoprotein; hydrolase; serine carboxypeptidase; zymogen
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-73/Domain: propeptide #status predicted <PRO>
F;74-484/Product: carboxypeptidase C #status predicted <MAT>
F;485-499/Domain: carboxyl-terminal propeptide #status predicted <CPRO>
F;144/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;216,404,461/Active site: Ser, Asp, His #status predicted

Query Match 22.9%; Score 585.5; DB 1; Length 500;
Best Local Similarity 29.6%; Pred. No. 5.6e-36;
Matches 149; Conservative 103; Mismatches 195; Indels 57; Gaps 15;

```
Qy          1 MVGAMWKVIVSLVLLMPGPC-DGL-----------FHSLYRSVSMPPK-------GDSG 40
              |  |   :|: :|:|    | :||             | ||::: ||        ||
Db          1 MATARVSLILLVVVLAASACAEGLRLPRDAKFPAAQAERLIRSLNLLPKEAGPTGAGD-- 58

Qy         41 QPLFLTPYIEAGKIQKGRELSLVGPFPGL-NMKSYAGFLTVNKTYNSNLFFWFFPAQIQP 99
                  | :  |:: : | ::| |   |: ::  :||:  :  |::: :|:: | :: :
Db         59 -----VPSVAPGELLE-RRVTLPGLPQGVGDLGHHAGYYRLPNTHDARMFYFLFESRGKK 112

Qy        100 EDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGF 159
              || |||:|| |||| ||   :| |:||: :::||:|    | | |  :::::| | ||||
Db        113 ED-PVVIWLTGGPGCSSELAVFYENGPFTISNNMSLAWNKFGWDTISNIIFVDQPTGTGF 171

Qy        160 SFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHS 219
              |:: |      :|  |: |||| |  ||:  ||:  |||::|||||| |:|| |  :|
Db        172 SYSSDDRDTRHDETGVSNDLYSFLQVFFKKHPEFAKNDFFITGESYAGHYIPAFASRVHQ 231

Qy        220 LNPVRE-VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHI 278
              |   | : ||| | |||:| :||      | ::   : |: :       |    |   |
Db        232 GNKANEGIHINLKGFAIGNGLTDPAIQYKAYTDYALDMNLIKKSDYDRINKFIPPCEFAI 291

Qy        279 R------KQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYY--- 329
              :      | :   |: : : :       |   : |  |||:  :  | | :| |
Db        292 KLCGTNGKASCMAAYMVCNSIF--------SSIMKLVGTKNYYDVRK--ECEGKLCYDFS 341

Qy        330 --VKPLSLPEVRQAIHVGNQTF-NDGTIVEKYLREDTVQSVKPWLTEIM-NNYKVLIYNG 385
                ||      |::|| ||:  | :  | | : :  | :::::  :  :: :   |||| |
Db        342 NLEKFFGDKAVKEAIGVGDLEFVSCSTTVYQAMLTDWMRNLEVGIPALLEDGINVLIYAG 401

Qy        386 QLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDFHQVIIRG 445
              : .|:|       | :  |:| | ::: : :     |  |   || ::  |    : :
Db        402 EYDLICNWLGNSRWVHSMEWSGQKDFVSSHESP---FVVDGAEAGVLKSHGPLSFLKVHN 458

Qy        446 GGHILPYDQPLRAFDMINRFIYGK 469
              ||::| |||  : :|: ||  ||
Db        459 AGHMVPMDQPKASLEMLRRFTQGK 482
```

RESULT 4
T48977
carboxypeptidase-like protein F14D17.80 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change 24-Oct-2000
C;Accession: T48977
R;Jordan, N.; Bangert, S.; Wiedelmann, R.; Voss, H.; Unseld, M.; Mewes, H.W.; Rudd, S.
submitted to the Protein Sequence Database, April 2000
A;Reference number: Z25008
A;Accession: T48977
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-510 <JOR>
A;Cross-references: EMBL:AL353992; GSPDB:GN00061; ATSP:F14D17.80
A;Experimental source: cultivar Columbia; BAC clone F14D17
C;Genetics:
A;Gene: ATSP:F14D17.80
A;Map position: 3
A;Introns: 115/2; 171/3; 211/3; 259/3; 310/1; 341/3; 428/1; 472/3
C;Superfamily: serine carboxypeptidase
F;231,421,478/Active site: Ser, Asp, His #status predicted

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:38:00 ; Search time 18 Seconds
(without alignments)
1243.595 Million cell updates/sec

Title: US-10-084-018-3
Perfect score: 2554
Sequence: 1 MVGAMWKVIVSLVLLMPGPC.....RAFDMINRFIYGKGWDPYVG 476

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2527	98.9	476	1	CPVL_HUMAN	Q9h3g5 homo sapien
2	1014	39.7	471	1	VCP_AEDAE	P42660 aedes aegyp
3	585.5	22.9	500	1	CBP3_ORYSA	P37891 oryza sativ
4	576	22.6	508	1	CBP3_HORVU	P21529 hordeum vul
5	566.5	22.2	516	1	CBPX_ARATH	P32826 arabidopsis
6	556	21.8	429	1	CBPX_ORYSA	P52712 oryza sativ
7	555.5	21.8	500	1	CBP3_WHEAT	P11515 triticum ae
8	555	21.7	480	1	PRTP_HUMAN	P10619 homo sapien
9	536	21.0	474	1	PRTP_MOUSE	P16675 mus musculu
10	491	19.2	454	1	YUA6_CAEEL	P52715 caenorhabdi
11	489.5	19.2	542	1	CBPY_CANAL	P30574 candida alb
12	481.5	18.9	516	1	CP23_HORVU	P52711 hordeum vul
13	479.5	18.8	469	1	YUW5_CAEEL	P52717 caenorhabdi
14	471	18.4	508	1	YBY9_YEAST	P38109 saccharomyc
15	455	17.8	1002	1	CBPY_SCHPO	O13849 schizosacch
16	447.5	17.5	499	1	CBP1_HORVU	P07519 hordeum vul
17	446	17.5	482	1	NF31_NAEFO	P42661 naegleria f
18	442.5	17.3	523	1	CBPY_PICPA	P52710 pichia past
19	432.5	16.9	510	1	CBP1_ORYSA	P37890 oryza sativ
20	432	16.9	532	1	CBPY_YEAST	P00729 saccharomyc
21	428.5	16.8	423	1	CBP2_WHEAT	P08819 triticum ae
22	426.5	16.7	436	1	CP22_HORVU	P55748 hordeum vul
23	425	16.6	452	1	RISC_MOUSE	Q920a5 mus musculu
24	421.5	16.5	452	1	RISC_RAT	Q920a6 rattus norv
25	413.5	16.2	476	1	CBP2_HORVU	P08818 hordeum vul
26	410	16.1	574	1	YPP3_CAEEL	P52716 caenorhabdi
27	396	15.5	452	1	RISC_HUMAN	Q9hb40 homo sapien
28	395	15.5	470	1	YSS2_CAEEL	Q09991 caenorhabdi
29	379.5	14.9	423	1	CPS1_PENJA	P34946 penicillium
30	376	14.7	729	1	KEX1_YEAST	P09620 saccharomyc
31	346	13.5	505	1	YXD2_CAEEL	P52714 caenorhabdi
32	330.5	12.9	523	1	PEPS_ASPSA	P52719 aspergillus
33	309.5	12.1	507	1	SXA2_SCHPO	P32825 schizosacch
34	290	11.4	366	1	HNLS_SORBI	P52708 sorghum bic
35	288.5	11.3	531	1	PEPF_ASPNG	P52718 aspergillus
36	256	10.0	324	1	CP21_HORVU	P55747 hordeum vul
37	245	9.6	286	1	CBPX_PEA	Q41005 pisum sativ
38	116.5	4.6	456	1	TRPE_LACLA	Q02001 lactococcus
39	113	4.4	1516	1	MYS4_SCHPO	O94477 schizosacch
40	110.5	4.3	1048	1	SILA_SALTY	Q9zhc9 salmonella
41	104.5	4.1	576	1	T2BR_BACSU	P06529 bacillus su
42	103.5	4.1	1562	1	YM81_YEAST	Q04781 saccharomyc
43	100.5	3.9	547	1	SYM_THEAC	Q9hj12 thermoplasm
44	99.5	3.9	1217	1	YHCR_BACSU	P54602 bacillus su
45	99	3.9	259	1	CAH2_TRIHK	Q8uwa5 tribolodon

ALIGNMENTS

RESULT 1
CPVL_HUMAN
ID CPVL_HUMAN STANDARD; PRT; 476 AA.
AC Q9H3G5; Q8NBL7; Q96AR7; Q9HB41;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Probable serine carboxypeptidase CPVL precursor (EC 3.4.16.-)
DE (Carboxypeptidase, vitellogenic-like) (Vitellogenic carboxypeptidase-
DE like protein) (VCP-like protein).
GN CPVL OR VLP.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=21295045; PubMed=11401439;
RA Mahoney J.A., Ntolosi B., DaSilva R.P., Gordon S., McKnight A.J.;
RT "Cloning and characterization of CPVL, a novel serine
RT carboxypeptidase, from human macrophages.";
RL Genomics 72:243-251(2001).
RN [2]
RP SEQUENCE FROM N.A.
RA Cho J.-J., Baik H.-H.;
RT "Cloning of VCP-like protein expressed in human heart and placenta.";
RL Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RA Ota T., Nishikawa T., Suzuki Y., Kawai-Hio Y., Hayashi K., Ishii S.,
RA Saito K., Yamamoto J., Wakamatsu A., Nagai T., Nakamura Y.,
RA Nagahari K., Sugano S., Isogai T.;
RT "HRI human cDNA sequencing project.";
RL Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;

```
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: May be involved in the digestion of phagocytosed
CC       particles in the lysosome, participation in an inflammatory
CC       protease cascade, and trimming of peptides for antigen
CC       presentation.
CC   -!- TISSUE SPECIFICITY: Expressed in macrophages but not in other
CC       leukocytes. Abundantly expressed in heart and kidney. Also
CC       expressed in spleen, leukocytes, and placenta.
CC   -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF106704; AAG37991.2; -.
DR   EMBL; AF282617; AAG14348.1; -.
DR   EMBL; AK075433; BAC11618.1; -.
DR   EMBL; BC016838; AAH16838.1; -.
DR   HSSP; P10619; 1IVY.
DR   MEROPS; S10.003; -.
DR   Genew; HGNC:14399; CPVL.
DR   InterPro; IPR000379; Ser_estrs_site.
DR   InterPro; IPR001563; Serine_carbpept.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR   PROSITE; PS00560; CARBOXYPEPT_SER_HIS; FALSE_NEG.
KW   Hydrolase; Carboxypeptidase; Glycoprotein; Zymogen; Signal.
FT   SIGNAL        1     22       POTENTIAL.
FT   PROPEP       23      ?       POTENTIAL.
FT   CHAIN         ?    476       PROBABLE SERINE CARBOXYPEPTIDASE CPVL.
FT   ACT_SITE    204    204       BY SIMILARITY.
FT   ACT_SITE    388    388       BY SIMILARITY.
FT   ACT_SITE    448    448       BY SIMILARITY.
FT   CARBOHYD     81     81       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    132    132       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    307    307       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    346    346       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT     25     25       R -> H (IN REF. 2).
FT   CONFLICT    284    284       L -> F (IN REF. 3 AND 4).
FT   CONFLICT    287    287       F -> L (IN REF. 3).
FT   CONFLICT    398    398       H -> R (IN REF. 3 AND 4).
FT   CONFLICT    422    422       F -> L (IN REF. 2).
FT   CONFLICT    435    435       A -> V (IN REF. 3 AND 4).
FT   CONFLICT    438    438       F -> S (IN REF. 2).
SQ   SEQUENCE   476 AA;  54110 MW;  2D966683A4F3FD01 CRC64;

  Query Match           98.9%;  Score 2527;  DB 1;  Length 476;
  Best Local Similarity   98.7%;  Pred. No. 2.9e-177;
  Matches  470;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db          1 MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGDSGQPLFLTPYIEAGKIQKGREL 60

Qy         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGL 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db         61 SLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMFGL 120

Qy        121 FVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db        121 FVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              |||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWLEAFEILDKLLDGDLTS 300

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360

Qy        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWK 420
              |||||||||||||||||||||||||||||||||||||||||| ||||||||||||||||||
Db        361 EDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTEHSLMGMDWKGSQEYKKAEKKVWK 420

Qy        421 IFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db        421 IFKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476


RESULT 2
VCP_AEDAE
ID   VCP_AEDAE      STANDARD;      PRT;   471 AA.
AC   P42660;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Vitellogenic carboxypeptidase precursor (EC 3.4.16.-).
GN   VCP.
OS   Aedes aegypti (Yellowfever mosquito).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes.
OX   NCBI_TaxID=7159;
RN   [1]
RP   SEQUENCE FROM N.A., AND SEQUENCE OF 20-36.
RC   TISSUE=Fat body;
RX   MEDLINE=92073379; PubMed=1961751;
RA   Cho W.-L., Deitsch K.W., Raikhel A.S.;
RT   "An extraovarian protein accumulated in mosquito oocytes is a
RT   carboxypeptidase activated in embryos.";
RL   Proc. Natl. Acad. Sci. U.S.A. 88:10821-10824(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97242559; PubMed=9087558;
RA   Deitsch K.W., Raikhel A.S.;
RT   "Cloning and analysis of the locus for mosquito vitellogenic
RT   carboxypeptidase.";
RL   Insect Mol. Biol. 2:205-213(1993).
CC   -!- FUNCTION: MAY PLAY A ROLE IN ACTIVATING HYDROLYTIC ENZYMES THAT
CC       ARE INVOLVED IN THE DEGRADATION OF YOLK PROTEINS IN DEVELOPING
CC       EMBRYOS OR MAY FUNCTION AS AN EXOPEPTIDASE IN THE DEGRADATION OF
CC       VITELLOGENIN.
CC   -!- TISSUE SPECIFICITY: SYNTHESIZED IN THE FAT BODY OF VITELLOGENIC
CC       FEMALES, SECRETED INTO THE HEMOLYMPH AND ACCUMULATES IN YOLK
CC       BODIES OF DEVELOPING OOCYTES.
CC   -!- DEVELOPMENTAL STAGE: MAXIMALLY PRESENT AT THE MIDDLE OF EMBRYONIC
CC       DEVELOPMENT AND DISAPPEARS BY THE END.
CC   -!- INDUCTION: By 20-hydroxyecdysone.
CC   -!- PTM: ACTIVATION OF VCP IN EGGS IS ASSOCIATED WITH THE REDUCTION
CC       IN ITS SIZE FROM 53 kDa (INACTIVE FORM) TO 48 kDa (ACTIVE ENZYME).
CC   -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
CC   -!- CAUTION: REF.1 SEQUENCE DIFFERS FROM THAT SHOWN IN THE C-TERMINAL
CC       DUE TO A PUTATIVE FRAMESHIFT THAT MASKS THE LAST ACTIVE SITE
CC       RESIDUE.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M79452; AAA17682.1; -.
DR   EMBL; L46594; AAC41580.1; -.
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DR   PIR; A41612; A41612.
DR   HSSP; P10619; 1IVY.
DR   MEROPS; S10.003; -.
DR   InterPro; IPR000379; Ser_estrs_site.
DR   InterPro; IPR001563; Serine_carbpept.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR   PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
KW   Hydrolase; Carboxypeptidase; Glycoprotein; Hemolymph; Signal.
FT   SIGNAL        1     19
FT   CHAIN        20    471       VITELLOGENIC CARBOXYPEPTIDASE.
FT   ACT_SITE    207    207       BY SIMILARITY.
FT   ACT_SITE    391    391       BY SIMILARITY.
FT   ACT_SITE    448    448       BY SIMILARITY.
FT   CARBOHYD    135    135       N-LINKED (GLCNAC. . .) (PROBABLE).
FT   CONFLICT     37     37       P -> R (IN REF. 1).
FT   CONFLICT    136    136       K -> N (IN REF. 1).
FT   CONFLICT    284    285       NS -> KC (IN REF. 1).
FT   CONFLICT    426    471       GEIAGYKKRAGRLQEVLIRNAGHMVPRDQPKWAFDMITSFT
FT                                HKNYL -> RKSPGTRSGLVVCKRC (IN REF. 1).
SQ   SEQUENCE   471 AA;  53676 MW;  FD1D0FBC15B2A7CE CRC64;

  Query Match             39.7%;  Score 1014;  DB 1;  Length 471;
  Best Local Similarity   43.9%;  Pred. No. 9.9e-67;
  Matches  197;  Conservative   95;  Mismatches  145;  Indels   12;  Gaps    7;

Qy         24 FHSLYRSVSMPPK-GDSGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYAGFLTVNK 82
              :  | |  : ||: |:||:|:|||||| :: |||:: |  : |       :::||:||:||:
Db         26 YKKLMRGSASPPRPGESGEPLFLTPLLQDGKIEEARNKARVNHPMLSSVESYSGFMTVDA 85

Qy         83 TYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPW 142
               :|||||||: ||:   | ||:::|||||| ||: |:| |:||: :  | ::: |:: |
Db         86 KHNSNLFFWYVPAKNNREQAPILVWLQGGPGASSLFGMFEENGPFHIHRNKSVKQREYSW 145

Qy        143 TTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTG 202
              |:|||||||||||||||   ||: ||: |  :|   : ||| :||    : ||::|
Db        146 HQNHHMIYIDNPVGTGFSFTDSDEGYSTNEEHVGENLMKFIQQFFVLFPNLLKHPFYISG 205

Qy        203 ESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEK 262
              ||| ||:|||  : ||  |   : |||| |:||||||:|| : :  | |:||::||:|
Db        206 ESYGGKFVPAFGYAIH--NSQSQPKINLQGLAIGDGYTDPLNQL-NYGEYLYELGLIDLN 262

Qy        263 QKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTE 322
              :| | :     |    :::   |  ::  | || |    |||: ||| |:||||::  |
Db        263 GRKKFDEDTAAAIACAERKDMNSANRLIQGLFDG-LDGQESYFKKVTGFSSYYNFIKGDE 321

Qy        323 PEDQ-LYYVKFLSLPEVRQAIHVGNQTFNDG---TIVEKYLREDTVQSVKPWLTEIMNNY 378
              |    ::||| ||||: ||||   |:|      | : | |||: :| ||:::::::|
Db        322 ESKQDSVLMEFLSNPEVRKGIHVGELPFHDSDGHNKVAEMLSEDTLDTVAPWVSKLLSHY 381

Qy        379 KVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDF 438
              :|| |||||||| |  :|   || | : |  |||:| ::::::   | |:||| :: |
Db        382 RVLFYNGQLDIICAYPMTVDFLMKMPFDGDSEYKRANREIYRV---DGEIAGYKKRAGRL 438

Qy        439 HQVIIRGGGHILPYDQPLRAFDMINRFIY 467
              :|:||  ||::| |||  ||||| | :
Db        439 QEVLIRNAGHMVPRDQPKWAFDMITSFTH 467


RESULT 3
CBP3_ORYSA
ID   CBP3_ORYSA     STANDARD;      PRT;   500 AA.
AC   P37891;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Serine carboxypeptidase III precursor (EC 3.4.16.5).
GN   CBP3.
OS   Oryza sativa (Rice).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC   Ehrhartoideae; Oryzeae; Oryza.
OX   NCBI_TaxID=4530;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=cv. Yukihikari; TISSUE=Seed;
RX   MEDLINE=92329723; PubMed=1627776;
RA   Washio K., Ishikawa K.;
RT   "Structure and expression during the germination of rice seeds of the
RT   gene for a carboxypeptidase.";
RL   Plant Mol. Biol. 19:631-640(1992).
CC   -!- CATALYTIC ACTIVITY: Release of a C-terminal amino acid with a
CC       broad specificity.
CC   -!- SUBUNIT: Monomer (Probable).
CC   -!- INDUCTION: BY GIBBERELLIC ACID (GA). INHIBITED BY ABSCISIC ACID
CC       (ABA).
CC   -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; D10985; BAA01757.1; -.
DR   PIR; S22530; S22530.
DR   HSSP; P00729; 1YSC.
DR   MEROPS; S10.009; -.
DR   Gramene; P37891; -.
DR   InterPro; IPR000379; Ser_estrs_site.
DR   InterPro; IPR001563; Serine_carbpept.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR   PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
KW   Hydrolase; Carboxypeptidase; Glycoprotein; Zymogen; Signal.
FT   SIGNAL        1     21       POTENTIAL.
FT   PROPEP       22     73       BY SIMILARITY.
FT   CHAIN        74    484       SERINE CARBOXYPEPTIDASE III.
FT   PROPEP      485    500       BY SIMILARITY.
FT   ACT_SITE    216    216       BY SIMILARITY.
FT   ACT_SITE    404    404       BY SIMILARITY.
FT   ACT_SITE    461    461       BY SIMILARITY.
FT   BINDING     407    407       SUBSTRATE (BY SIMILARITY).
FT   CARBOHYD    144    144       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   500 AA;  55446 MW;  AE455E2780147DB8 CRC64;

  Query Match             22.9%;  Score 585.5;  DB 1;  Length 500;
  Best Local Similarity   29.6%;  Pred. No. 2.2e-35;
  Matches  149;  Conservative  103;  Mismatches  195;  Indels   57;  Gaps   15;

Qy          1 MVGAMWKVIVSLVLLMPGPC-DGL------------FHSLYRSVSMPPK-------GDSG 40
              |  |   :|: :|:|     | :||                | ||::: ||        ||
Db          1 MATARVSLILLVVVLAASACAEGLRLPRDAKFPAAQAERLIRSLNLLPKEAGPTGAGD-- 58

Qy         41 QPLFLTPYIEAGKIQKGRELSLVGPFPGL-NMKSYAGFLTVNKTYNSNLFFWFFPAQIQP 99
                 | :  |:: : | ::| |    |: ::  :||:  :  |::: :|:: | :: :
Db         59 -----VPSVAPGELLE-RRVTLPGLPQGVGDLGHHAGYYRLPNTHDARMFYFLFESRGKK 112

Qy        100 EDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGF 159
              || |||:|| |||| ||   :| |:||: :::||:|    | | |  :::::| | ||||
Db        113 ED-PVVIWLTGGPGCSSELAVFYENGPFTISNNMSLAWNKFGWDTISNIIFVDQPTGTGF 171

Qy        160 SFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHS 219
              |:: |      :|  |: |||| |  ||:  ||: |||::|||||| |:|| |  :|
Db        172 SYSSDDRDTRHDETGVSNDLYSFLQVFFKKHPEFAKNDFFITGESYAGHYIPAFASRVHQ 231

Qy        220 LNPVRE-VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHI 278
              |   | : ||| | |||:| :||     | ::   : |: :       |   |   |
Db        232 GNKANEGIHINLKGFAIGNGLTDPAIQYKAYTDYALDMNLIKKSDYDRINKFIPPCEFAI 291
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Qy        279 R------KQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYY--- 329
Db        292 KLCGTNGKASCMAAYMVCNSIF--------SSIMKLVGTKNYYDVRK--ECEGKLCYDFS 341

Qy        330 --VKFLSLPEVRQAIHVGNQTF-NDGTIVEKYLREDTVQSVKPWLTEIM-NNYKVLIYNG 385
Db        342 NLEKFFGDKAVKEAIGVGDLEFVSCSTTVYQAMLTDWMRNLEVGIPALLEDGINVLIYAG 401

Qy        386 QLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDFHQVIIRG 445
Db        402 EYDLICNWLGNSRWVHSMEWSGQKDFVSSHESP---FVVDGAEAGVLKSHGPLSFLKVHN 458

Qy        446 GGHILPYDQPLRAFDMINRFIYGK 469
Db        459 AGHMVPMDQPKASLEMLRRFTQGK 482


RESULT 4
CBP3_HORVU
ID   CBP3_HORVU     STANDARD;      PRT;   508 AA.
AC   P21529;
DT   01-MAY-1991 (Rel. 18, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Serine carboxypeptidase III precursor (EC 3.4.16.5) (CP-MIII).
GN   CBP3 OR CXP;3.
OS   Hordeum vulgare (Barley).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
OC   Triticeae; Hordeum.
OX   NCBI_TaxID=4513;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=cv. Himalaya; TISSUE=Aleurone;
RA   Rocher A., Lok F., Cameron-Mills V., von Wettstein D.;
RL   Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE OF 81-491.
RC   STRAIN=cv. Gula;
RX   MEDLINE=90315015; PubMed=2639682;
RA   Soerensen S.B., Svendsen I., Breddam K.;
RT   "Primary structure of carboxypeptidase III from malted barley.";
RL   Carlsberg Res. Commun. 54:193-202(1989).
CC   -!- CATALYTIC ACTIVITY: Release of a C-terminal amino acid with a
CC       broad specificity.
CC   -!- ENZYME REGULATION: INHIBITED BY MERCURIC IONS.
CC   -!- SUBUNIT: Monomer.
CC   -!- SUBCELLULAR LOCATION: SECRETED INTO THE ENDOSPERM.
CC   -!- DEVELOPMENTAL STAGE: EXPRESSED MAINLY IN THE ALEURONE AND, TO A
CC       LESSER EXTENT IN THE EMBRYO, THROUGHOUT THE 5-DAYS GERMINATION
CC       PERIOD EXCLUSIVELY, WITH A MAXIMAL LEVEL AT 3 DAYS. ALSO FOUND IN
CC       THE ROOTS AND SHOOTS OF THE GROWING SEEDLING.
CC   -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; Y09604; CAA70817.1; -.
DR   HSSP; P00729; 1CPY.
DR   MEROPS; S10.009; -.
DR   InterPro; IPR000379; Ser_estrs_site.
DR   InterPro; IPR001563; Serine_carbpept.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR   PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
KW   Hydrolase; Carboxypeptidase; Glycoprotein; Zymogen; Signal.
FT   SIGNAL        1     19       POTENTIAL.
FT   PROPEP       20     80
FT   CHAIN        81    491       SERINE CARBOXYPEPTIDASE III.
FT   PROPEP      492    508
FT   MOD_RES      81     81       BLOCKED.
FT   ACT_SITE    223    223       BY SIMILARITY.
FT   ACT_SITE    411    411       BY SIMILARITY.
FT   ACT_SITE    468    468       BY SIMILARITY.
FT   BINDING     414    414       SUBSTRATE.
FT   CARBOHYD    151    151       N-LINKED (GLCNAC. . .).
FT   VARIANT     265    265       Q -> V (POLYMORPHISM).
SQ   SEQUENCE   508 AA;  56362 MW;  70C6751D78D40AB6 CRC64;

  Query Match             22.6%;  Score 576;  DB 1;  Length 508;
  Best Local Similarity   29.7%;  Pred. No. 1.1e-34;
  Matches  150;  Conservative   96;  Mismatches  193;  Indels   66;  Gaps   15;

Qy          9 IVSLVLLMP----------GPCDGLF-----HSLYRSVSMPPK---GDSGQPLFLTPYIE 50
Db          7 LVSLLLLLALCAAAAGALRLPPDASFPGAQAERLIRALNLLPKDSSSSSGR--------H 58

Qy         51 AGKIQKGRELSLVG-------PFPGL-----NMKSYAGFLTVNKTYNSNLFFWFFPAQIQ 98
Db         59 GARVGEGNEDVAPGQLLERRVTLPGLPEGVADLGHHAGYYRLPNTHDARMFYFFFESRGK 118

Qy         99 PEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTG 158
Db        119 KED-PVVIWLTGGPGCSSELAVFYENGPFTIANNMSLVWNKFGWDKISNIIFVDQPTGTG 177

Qy        159 FSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIH 218
Db        178 FSYSSDDRDTRHDETGVSNDLYDFLQVFFKKHPEFIKNDFFITGESYAGHYIPAFASRVH 237

Qy        219 SLNPVRE-VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEH 277
Db        238 QGNKKNEGTHINLKGFAIGNGLTDPAIQYKAYTDYALEMNLIQKADYERINKFIPPCEFA 297

Qy        278 IR------KQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYY-- 329
Db        298 IKLCGTNGKASCMAAYMVCNTIFNS--------IMKLVGTKNYYDVRK--ECEGKLCYDF 347

Qy        330 ---VKFLSLPEVRQAIHVGNQTF-NDGTIVEKYLREDTVQSVKPWLTEIM-NNYKVLIYN 384
Db        348 SNLEKFFGDKAVRQAIGVGDIEFVSCSTSVYQAMLTDWMRNLEVGIPALLEDGINVLIYA 407

Qy        385 GQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDFHQVIIR 444
Db        408 GEYDLICNWLGNSRWVHSMEWSGQKDFAKTAE---SSFLVDDAQAGVLKSHGALSFLKVH 464

Qy        445 GGGHILPYDQPLRAFDMINRFIYGK 469
Db        465 NAGHMVPMDQPKAALEMLRRFTQGK 489


RESULT 5
CBPX_ARATH
ID   CBPX_ARATH     STANDARD;      PRT;   516 AA.
AC   P32826; Q42107; Q9CAE5;
DT   01-OCT-1993 (Rel. 27, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Serine carboxypeptidase precursor (EC 3.4.16.-).
GN   AT3G10410 OR F13M14.32.
OS   Arabidopsis thaliana (Mouse-ear cress).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
OC   eurosids II; Brassicales; Brassicaceae; Arabidopsis.
OX   NCBI_TaxID=3702;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Bradley D.;
RL   Submitted (XXX-1992) to the EMBL/GenBank/DDBJ databases.
RN   [2]
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:41:03 ; Search time 42 Seconds
(without alignments)
2924.596 Million cell updates/sec

Title: US-10-084-018-3
Perfect score: 2554
Sequence: 1 MVGAMWKVIVSLVLLMPGPC.....RAFDMINRFIYGKGWDPYVG 476

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1804	70.6	434	11	Q9D3S9	Q9d3s9 mus musculu
2	1580	61.9	295	4	O75225	O75225 homo sapien
3	1214	47.5	233	4	Q9NZ90	Q9nz90 homo sapien
4	960.5	37.6	482	5	Q9VDT5	Q9vdt5 drosophila
5	839.5	32.9	434	5	Q8I161	Q8i161 drosophila
6	623.5	24.4	444	10	Q9M9Q6	Q9m9q6 arabidopsis
7	582.5	22.8	508	10	Q8L6A7	Q8l6a7 theobroma c
8	581	22.7	505	10	Q9FFB0	Q9ffb0 arabidopsis
9	577.5	22.6	507	10	Q8VWQ0	Q8vwq0 gossypium h
10	571.5	22.4	510	10	Q9LXH4	Q9lxh4 arabidopsis
11	567.5	22.2	501	10	Q9XH61	Q9xh61 matricaria
12	564.5	22.1	510	10	Q93ZC3	Q93zc3 arabidopsis
13	561	22.0	429	10	Q9LHX5	Q9lhx5 oryza sativ
14	556	21.8	429	10	Q8GVT1	Q8gvt1 oryza sativ
15	556	21.8	548	4	Q9BR08	Q9br08 homo sapien
16	533.5	20.9	474	11	Q9D2D1	Q9d2d1 mus musculu
17	503	19.7	2105	5	Q17679	Q17679 caenorhabdi
18	500	19.6	497	10	Q8L7B2	Q8l7b2 arabidopsis
19	491	19.2	499	10	Q9FMX9	Q9fmx9 arabidopsis
20	484	19.0	482	10	Q9SV04	Q9sv04 arabidopsis
21	473.5	18.5	494	10	Q9FEU4	Q9feu4 pisum sativ
22	473	18.5	504	10	Q9LSV8	Q9lsv8 arabidopsis
23	470.5	18.4	452	10	Q9FP87	Q9fp87 oryza sativ
24	466.5	18.3	456	10	Q9SV78	Q9sv78 arabidopsis
25	466.5	18.3	501	10	Q9SV02	Q9sv02 arabidopsis
26	465.5	18.2	552	3	Q96VC4	Q96vc4 emericella
27	463.5	18.1	2338	5	Q94269	Q94269 caenorhabdi
28	462.5	18.1	479	10	Q949Q7	Q949q7 arabidopsis
29	460.5	18.0	437	10	Q9FWG1	Q9fwg1 oryza sativ
30	460.5	18.0	482	10	Q9FRJ0	Q9frj0 oryza sativ
31	460	18.0	502	10	Q9LY68	Q9ly68 arabidopsis
32	455.5	17.8	459	10	Q8RZS0	Q8rzs0 oryza sativ
33	454.5	17.8	472	10	Q9LSM9	Q9lsm9 arabidopsis
34	454.5	17.8	524	10	Q8GTK2	Q8gtk2 oryza sativ
35	454	17.8	479	10	Q9MAR8	Q9mar8 arabidopsis
36	451	17.7	465	10	O04084	O04084 arabidopsis
37	439	17.2	498	10	Q9M513	Q9m513 lycopersico
38	435	17.0	490	10	Q9FYP7	Q9fyp7 oryza sativ
39	434.5	17.0	456	10	Q9C7E2	Q9c7e2 arabidopsis
40	432	16.9	425	10	O82229	O82229 arabidopsis
41	432	16.9	461	10	Q93Y09	Q93y09 arabidopsis
42	431.5	16.9	458	10	O22803	O22803 arabidopsis
43	431	16.9	469	10	Q9FH06	Q9fh06 arabidopsis
44	430	16.8	459	10	Q9SFB5	Q9sfb5 arabidopsis
45	429	16.8	452	10	Q9ZQQ0	Q9zqq0 arabidopsis

ALIGNMENTS

RESULT 1
Q9D3S9
ID Q9D3S9 PRELIMINARY; PRT; 434 AA.
AC Q9D3S9;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE 4933436L16Rik protein.
GN 4933436L16RIK.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Testis;
RX MEDLINE=21085660; PubMed=11217851;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Hayashizaki Y.;
RT "Functional annotation of a full-length mouse cDNA collection.";
RL Nature 409:685-690(2001).
DR EMBL; AK017087; BAB30589.1; -.
DR HSSP; P08819; 1WHT.

```
DR   MEROPS; S10.003; -.
DR   MGD; MGI:1918537; 4933436L16Rik.
DR   InterPro; IPR001064; Crystallin.
DR   InterPro; IPR001563; Serine_carbpept.
DR   InterPro; IPR000379; Ser_estrs_site.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR   PROSITE; PS00225; CRYSTALLIN_BETAGAMMA; 1.
SQ   SEQUENCE   434 AA;  49483 MW;  AE842557C8F52B31 CRC64;

  Query Match             70.6%;  Score 1804;  DB 11;  Length 434;
  Best Local Similarity   69.7%;  Pred. No. 2.5e-133;
  Matches  332;  Conservative   53;  Mismatches   45;  Indels   46;  Gaps    2;

Qy          1 MVGAMWKVIVSLVLLMPGPCDGLFHSLYRS--VSMPPKGDSGQPLFLTPYIEAGKIQKGR 58
              || | ||::|||:| |  | |||||::|||  ||   |||:||||||:|||: |||::|:
Db          1 MVRAKWKMVVSLILFMVSPGDGLFHAVYRSILVSQSFKGDAGQPLFLSPYIKNGKIKEGQ 60

Qy         59 ELSLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMX 118
                |:| ||||:| |||||::|||:|||||||||||||::|||||||||||||||||||
Db         61 RKSMVSPFPGMNDKSYAGYITVNQTYNSNLFFWFFPARMQPEDAPVVLWLQGGPGGSSMF 120

Qy        119 GLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARD 178
              |||||||||::|||||:  |||||| | |||||||||||||||||   ||| :||||||:|
Db        121 GLFVEHGPYIITSNMTVVARDFPWTFTLSMLYIDNPVGTGFSFTDHFQGYATSEDDVAQD 180

Qy        179 LYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDG 238
              ||||||||| :|||| |||||||||||||||||:|| ||||||||: || | ||||||
Db        181 LYSALIQFFTLFPEYAKNDFYVTGESYAGKYVPALAHYIHSLNPVRKFKIRLKGIAIGDA 240

Qy        239 YSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDL 298
              |:|||| |||||||||:
Db        241 YTDPES----------------------------------------ILDKLLDGDV 256

Qy        299 TSDPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKY 358
              |:  |:|||||||:|||| |:||||::| |: |||:||:|||||||||| |:||  |||:
Db        257 TTGSSFFQNVTGCTNYYNILQCTEPKEQSYFAKFLTLPQVRQAIHVGNQNFSDGAEVEKH 316

Qy        359 LREDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKV 418
              ||||||:|||||||:|||| |||||||||||||||||||||| |||||: |::| :||
Db        317 LREDTVKSVKPWLSEIMNYYKVLIYNGQLDIIVAAALTERSLMAMDWKGSRAYRRARRKV 376

Qy        419 WKIFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPY 474
              |||||||:|||||:|:|| |||||:|||||||||||:|:|||||||| :||:||
Db        377 WKIFKSDNEVAGYVRRVGKFHQVIVRGGGHILPYDQPMRSFDMINRFIYDRGWEPY 432


RESULT 2
O75225
ID   O75225      PRELIMINARY;      PRT;   295 AA.
AC   O75225;
DT   01-NOV-1998 (TrEMBLrel. 08, Created)
DT   01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   WUGSC:H_RG113D17.1 protein (Fragment).
GN   WUGSC:H_RG113D17.1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Bemis G., Stoneking T., Langston Y., Ames M.;
RT   "The sequence of Homo sapiens BAC clone CTB-113D17.";
RL   Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Waterston R.;
RL   Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC005162; AAC23787.1; -.
DR   HSSP; P08819; 1WHT.
DR   MEROPS; S10.003; -.
DR   InterPro; IPR001064; Crystallin.
DR   InterPro; IPR001563; Serine_carbpept.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR   PROSITE; PS00225; CRYSTALLIN_BETAGAMMA; 1.
FT   NON_TER      1      1
SQ   SEQUENCE   295 AA;  34144 MW;  FF7BEB265FA94983 CRC64;

  Query Match             61.9%;  Score 1580;  DB 4;  Length 295;
  Best Local Similarity   99.7%;  Pred. No. 5.7e-116;
  Matches  294;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        182 ALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSD 241
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYSD 60

Qy        242 PESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTSD 301
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTSD 120

Qy        302 PSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLRE 361
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 PSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLRE 180

Qy        362 DTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKI 421
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKVWKI 240

Qy        422 FKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 476
              ||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db        241 FKSDSEVAGYIRQAGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKGWDPYVG 295


RESULT 3
Q9NZ90
ID   Q9NZ90      PRELIMINARY;      PRT;   233 AA.
AC   Q9NZ90;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DE   Uncharacterized bone marrow protein BM031.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Bone marrow;
RX   MEDLINE=20499367; PubMed=11042152;
RA   Zhang Q.H., Ye M., Wu X.Y., Ren S.X., Zhao M., Zhao C.J., Fu G.,
RA   Shen Y., Fan H.Y., Lu G., Zhong M., Xu X.R., Han Z.G., Zhang J.W.,
RA   Tao J., Huang Q.H., Zhou J., Hu G.X., Gu J., Chen S.J., Chen Z.;
RT   "Cloning and functional analysis of cDNAs with open reading frames for
RT   300 previously undefined genes expressed in CD34+ hematopoietic
RT   stem/progenitor cells.";
RL   Genome Res. 10:1546-1560(2000).
DR   EMBL; AF217508; AAF67619.1; -.
DR   HSSP; P10619; 1IVY.
DR   MEROPS; S10.003; -.
DR   InterPro; IPR001563; Serine_carbpept.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 1.
DR   PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
SQ   SEQUENCE   233 AA;  26901 MW;  17321A49548B5BA8 CRC64;

  Query Match             47.5%;  Score 1214;  DB 4;  Length 233;
  Best Local Similarity   97.0%;  Pred. No. 2.3e-87;
  Matches  226;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;
```

```
Qy        117 MXGLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVA 176
              | ||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db          1 MFGLFVEHGPYVVTSNMTLRDRDFPWTTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVA 60

Qy        177 RDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIG 236
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 RDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIG 120

Qy        237 DGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDG 296
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 DGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDG 180

Qy        297 DLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTF 349
              |||||||||||||||||||||||||||||||||||||||||||||||||  |   |
Db        181 DLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIPRGESDF 233
```

RESULT 4
Q9VDT5
ID Q9VDT5 PRELIMINARY; PRT; 482 AA.
AC Q9VDT5;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE CG4572 protein (LD47549P).
GN CG4572.
OS Drosophila melanogaster (Fruit fly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC Ephydroidea; Drosophilidae; Drosophila.
OX NCBI_TaxID=7227;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=BERKELEY;
RX MEDLINE=20196006; PubMed=10731132;
RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
RT "The genome sequence of Drosophila melanogaster.";
RL Science 287:2185-2195(2000).

RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=Berkeley;
RA Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,
RA Champe M., Chavez C., Dorsett V., Farfan D., Frise E., George R.,
RA Gonzalez M., Guarin H., Li P., Liao G., Miranda A., Mungall C.J.,
RA Nunoo J., Pacleb J., Paragas V., Park S., Phouanenavong S., Wan K.,
RA Yu C., Lewis S.E., Rubin G.M., Celniker S.;
RL Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AE003728; AAF55705.1; -.
DR EMBL; AY052022; AAK93446.1; -.
DR HSSP; P10619; 1IVY.
DR MEROPS; S10.003; -.
DR FlyBase; FBgn0038738; CG4572.
DR InterPro; IPR001563; Serine_carbpept.
DR InterPro; IPR000379; Ser_estrs_site.
DR Pfam; PF00450; serine_carbpept; 1.
DR PRINTS; PR00724; CRBOXYPTASEC.
DR ProDom; PD001189; Serine_carbpept; 1.
DR PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
DR PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
SQ SEQUENCE 482 AA; 54385 MW; 59E4B1A0E7B1C2B3 CRC64;

Query Match 37.6%; Score 960.5; DB 5; Length 482;
Best Local Similarity 44.4%; Pred. No. 5.3e-67;
Matches 196; Conservative 91; Mismatches 137; Indels 17; Gaps 8;

```
Qy         38 DSGQPLFLTPYIEAGKIQKGRELSLV----GPFPGLNMKSYAGFLTVNKTYNSNLFFWFF 93
              | |:|||||| |    : |     |       | |  ::||:|:|||:  : ||:|||:|
Db         49 DPGEPLFLTPLINNASMSKQEVQKLARVVGSQFHG--VESYSGYLTVDPGFKSNMFFWYF 106

Qy         94 PAQIQPEDAPVVLWLQGGPGGSSMXGLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDN 153
              ||: :|| |||||||||||| ||: ||| |:||  :  :  |: |:: |: | :::||||
Db        107 PAEQEPEYAPVVLWLQGGPGASSLFGLFTENGPLELDGHGKLQKRNYTWSKTHNLIYIDN 166

Qy        154 PVGTGFSFTDDTHGYAVNEDDVARDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAI 213
              |||||||||::  ||| || || |:|: |::| :::|    :: |:|||||||||||||:
Db        167 PVGTGFSFTENDAGYATNEKDVGRNLHEAVMQLYELFEWSNSSGFWVTGESYAGKYVPAL 226

Qy        214 AHLIHSLNPVRE--VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQC 271
              |: || :    |  | : | |:|||:| |||   :  | ::|||:||:||   : |
Db        227 AYHIHKVQNAIETRVYVPLKGVAIGNGLSDPLHQL-KYGDYLYQLGLIDEHGLQSFHDAE 285

Qy        272 HECIEHIRKQNWFEAFEILDKLLDGDLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYYVK 331
              :  | |:  :   ||:: | |::|||:  | | |:|| : |||:|: |  :|     :
Db        286 AKGAECIKSHDMECAFDVFDSLINGDLTNG-SLFSNLTGYNWYYNYLK-THDDDGANLGE 343

Qy        332 FLSLPEVRQAIHVGNQTFND---GTIVEKYLREDTVQSVKPWLTEIMNNYKVLIYNGQLD 388
              ||     |:||||||:||:|      || :|::| : || ||: |:: :| | ||:||||
Db        344 FLQAGATRRAIHVGNKTFHDLDKENKVELHLKKDIMDSVAPWIAELLAHYTVCIYSGQLD 403

Qy        389 IIVAAALTERSLMGMDWKGSQEYKKAEKKVWKIFKSDSEVAGYIRQVGDFHQVIIRGGGH 448
              |||| ||   |  : : || :|| | ::||:: |   |||||::  |   ::::|  ||
Db        404 IIVAYPLTRNYLNQLKFPGSDKYKVAPREVWRVGK---EVAGYVKHAGHLVEIMVRNAGH 460

Qy        449 ILPYDQPLRAFDMINRFIYGK 469
              : |:|||   : ||:   : |
Db        461 MAPHDQPKWLYMMIDHLTHYK 481
```

RESULT 5
Q8I161
ID Q8I161 PRELIMINARY; PRT; 434 AA.
AC Q8I161;
DT 01-MAR-2003 (TrEMBLrel. 23, Created)
DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE CG4572-PA (Fragment).
GN CG4572.
OS Drosophila pseudoobscura (Fruit fly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC Ephydroidea; Drosophilidae; Drosophila.

```
OX   NCBI_TaxID=7237;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Tucson 14011-0121.4;
RX   MEDLINE=22426072; PubMed=12537575;
RA   Bergman C.M., Pfeiffer B.D., Rincon-Limas D.E., Hoskins R.A.,
RA   Gnirke A., Mungall C.J., Wang A.M., Kronmiller B., Pacleb J., Park S.,
RA   Stapleton M., Wan K., George R.A., de Jong P.J., Botas J., Rubin G.M.,
RA   Celniker S.E.;
RT   "Assessing the impact of comparative genomic sequence data on the
RT   functional annotation of the Drosophila genome.";
RL   Genome Biol. 3:RESEARCH0086.1-RESEARCH0086.20(2002).
DR   EMBL; AY190960; AAO01122.1; -.
FT   NON_TER     434     434
SQ   SEQUENCE   434 AA;  48764 MW;  3022A6CD78BCA69A CRC64;

  Query Match             32.9%;  Score 839.5;  DB 5;  Length 434;
  Best Local Similarity   42.6%;  Pred. No. 1.5e-57;
  Matches  182;  Conservative   80;  Mismatches  146;  Indels   19;  Gaps    7;

Qy          8 VIVSLVLLMPGPCDGLFHSLYRSVSMPPKG---------DSGQPLFLTPYIEAGKIQKG- 57
              :||:|:         |     ||   : |           | |:|||||| |     | |
Db         11 IIVALIAASSAAGGGEQERPYRRSFINPYPRYKFFDDGVDPGEPLFLTPLIHNASIPKED 70

Qy         58 -RELSLVGPFPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSS 116
               ::|: |        ::||:|:|||:| :|||:|||:|||:      |||||||||||| ||
Db         71 VQKLARVVGSQYHGVESYSGYLTVDKGFNSNMFFWYFPAEQDAVYAPVVLWLQGGPGASS 130

Qy        117 MXGLFVEHGPYVVTSNMTLRDRDFPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVA 176
              : ||| |:||  : ::  |: |:: |: | :::||||||||||||||   ||| || ||
Db        131 LFGLFTENGPLELDAHSKLQKRNYTWSKTHNLIYIDNPVGTGFSFTDKDEGYAKNEKDVG 190

Qy        177 RDLYSALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVRE--VKINLNGIA 234
              |:|: |::| :::|     :: |:|||||||||||||:|: || :     |  | : | |:|
Db        191 RNLHEAVMQLYELFEWSNSSGFWVTGESYAGKYVPALAYHIHQVQNAIETRVYVPLKGVA 250

Qy        235 IGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLL 294
              ||:| |||    :  | ::|||:||:|:   : |     :    |:  :   || : | |:
Db        251 IGNGLSDPLHQL-KYGDYLYQLGLIDDNGLQSFHAAEDKGATCIKNHDMECAFNVFDSLI 309

Qy        295 DGDLTSDPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFND--- 351
              :||||:  | | |:|| : |||:|: |          |||   | |::|||||: |:|
Db        310 NGDLTNG-SLFSNLTGFNWYYNYLK-THDNSGENLGKFLQAGETRRSIHVGNKPFHDLDK 367

Qy        352 GTIVEKYLREDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEY 411
                 || :|: | : || ||: |:: :| | ||:|||||||  ||    |  : : ||  |
Db        368 ENKVELHLKHDVMDSVAPWIAELLAHYTVCIYSGQLDIIVAYPLTRNYLNHLKFPGSDRY 427

Qy        412 KKAEKKV 418
              | | :::
Db        428 KVAPREI 434


RESULT 6
Q9M9Q6
ID   Q9M9Q6      PRELIMINARY;      PRT;   444 AA.
AC   Q9M9Q6;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   T15D22.4 protein (At1g15000/T15D22_7).
GN   T15D22.4.
OS   Arabidopsis thaliana (Mouse-ear cress).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
OC   eurosids II; Brassicales; Brassicaceae; Arabidopsis.
OX   NCBI_TaxID=3702;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=cv. columbia;
RA   Liu S.X., Yu G., Sakano H., Lee J.M., Lenz C., Pham P., Toriumi M.,
RA   Chin C., Chiou J., Choi E., Chung M., Gonzalez A., Howng B., Liu A.,
RA   Vaysberg M., Altafi H., Brooks S., Buehler E., Chao Q., Conn L.,
RA   Conway A.B., Hansen N.F., Johnson-Hopson C., Khan S., Kim C., Lam B.,
RA   Miranda M., Nguyen M., Palm C.J., Shinn P., Southwick A., Davis R.W.,
RA   Ecker J.R., Federspiel N.A., Theologis A.;
RT   "The sequence of BAC T15D22 from Arabidopsis thaliana chromosome 1.";
RL   Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Cheuk R., Chen H., Kim C.J., Meyers M.C., Banh J., Bowser L.,
RA   Carninci P., Chang E., Dale J.M., Goldsmith A.D., Hayashizaki Y.,
RA   Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
RA   Lee J.M., Lin J., Miranda M., Narusaka M., Nguyen M., Onodera C.S.,
RA   Palm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Southwick A.,
RA   Tang C.C., Toriumi M., Wu H.C., Yamada K., Yamamura Y., Yu G., Yu S.,
RA   Shinozaki K., Davis R.W., Theologis A., Ecker J.R.;
RT   "Arabidopsis cDNA clones.";
RL   Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Kim C.J., Chen H., Cheuk R., Shinn P., Bowser L., Carninci P.,
RA   Chan M.M., Chang C.H., Dale J.M., Hayashizaki Y., Hsuan V.W.,
RA   Ishida J., Jones T., Kamiya A., Karlin-Neumann G., Kawai J., Lam B.,
RA   Lee J.M., Lin J., Miranda M., Narusaka M., Nguyen M., Onodera C.S.,
RA   Palm C.J., Quach H.L., Sakurai T., Satou M., Seki M., Southwick A.,
RA   Tang C.C., Toriumi M., Wong C., Wu H.C., Yamada K., Yu G., Yuan S.,
RA   Shinozaki K., Davis R.W., Theologis A., Ecker J.R.;
RT   "Arabidopsis ORF clones.";
RL   Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC012189; AAF31022.1; -.
DR   EMBL; AY075612; AAL91626.1; -.
DR   EMBL; BT002620; AAO11536.1; -.
DR   HSSP; P08819; 1BCR.
DR   InterPro; IPR001563; Serine_carbpept.
DR   InterPro; IPR000379; Ser_estrs_site.
DR   Pfam; PF00450; serine_carbpept; 1.
DR   PRINTS; PR00724; CRBOXYPTASEC.
DR   ProDom; PD001189; Serine_carbpept; 2.
DR   PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
SQ   SEQUENCE   444 AA;  49222 MW;  E9E769B30DB492B8 CRC64;

  Query Match             24.4%;  Score 623.5;  DB 10;  Length 444;
  Best Local Similarity   35.2%;  Pred. No. 1.4e-40;
  Matches  145;  Conservative   74;  Mismatches  172;  Indels   21;  Gaps    9;

Qy         66 FPGLNMKSYAGFLTVNKTYNSNLFFWFFPAQIQP----EDAPVVLWLQGGPGGSSMXGLF 121
              ||   : : :|:| |      |:|: |: || :|     | |:::|||||| ||| | |
Db         28 FPDEALPTKSGYLPVKPAPGSSMFYAFYEAQ-EPTTPLPDTPLLVWLQGGPGCSSMIGNF 86

Qy        122 VEHGPYVVTSNMTLRDRD-FPWTTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
               | ||: | |  |  :|:   |      :|::|||:| |||           |:  ||  ||
Db         87 YELGPWRVVSRATDLERNPGAWNRLFGLLFVDNPIGVGFSIAASQQDIPTNQRQVAEHLY 146

Qy        181 SALIQFFQIFPEYKNNDFYVTGESYAGKYVPAIAHLIHSLNPVREVKINLNGIAIGDGYS 240
              :||::| :  | ::|    | |||||||||||| : |     |     |:|| |:|||:| :
Db        147 AALVEFLEQNPSFENRPVYFTGESYAGKYVPAIGYYILKEKP--NGKVNLKGLAIGNGLT 204

Qy        241 DPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGDLTS 300
              || : :  :|  :|   ||:: ||:   ||      :  :: | | || :   :||
Db        205 DPVTQVQTHAVNVYYSGLVNAKQRVELQKAQEISVALVKSQKWREAADARTELL------ 258

Qy        301 DPSYFQNVTGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQT-FND-GTIVEKY 358
                :  |:|| :  ||  |        |  |  |:  | :: : |     | :    ||
Db        259 --TLLSNMTGLATLYNTARAIPYRTDL-VVDLLNQREAKRVLGVSETVRFEECSDEVEDV 315

Qy        359 LREDTVQSVKPWLTEIMNNYKVLIYNGQLDIIVAAALTERSLMGMDWKGSQEYKKAEKKV 418
              || | ::|||  :    :   :||:|.| ||:      ||. :  |:| |  :  ||::|
Db        316 LRADVMKSVKFMVEYALERTQVLLYQGMLDLRDGVVSTEEWMKTMNWSGLGMFSTAERRV 375

Qy        419 WKIFKSDSEVAGYIRQVGDFHQVIIRGGGHILPYDQPLRAFDMINRFIYGKG 470
              ||    |  ||||::: |:   | : | || :| |: : : |||  :: |||
Db        376 WK--DEDGVVAGYVQRWGNLCHVAVTGAGHFVPTDKAVNSRDMIEGWVLGKG 425


RESULT 7
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